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## BRIEF REPORT

## Increases in Light and Intermittent Smoking Among Asian Americans and Non-Hispanic Whites

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## ABSTRACT

**Introduction:** Asian Americans are the fastest growing immigrant group in the United States and are more likely to be light and intermittent smokers (LITS) compared with non-Hispanic Whites (NHWs). LITS experience adverse health effects related to smoking. Previous research has aggregated Asian American ethnic groups, masking important differences between groups. We sought to compare LITS rates before and after the 1998 Master Settlement Agreement (MSA) among Asian American subgroups and NHWs in California utilizing data from the California Tobacco Surveys (CTS).

**Methods:** Combined 1990, 1992, and 1996 CTS (pre-MSA) and the 1999, 2002, 2005, and 2008 CTS (post-MSA) to examine changes in LITS (<10 cigarettes/day or not smoking daily). Chinese, Filipino, Japanese, and Korean ethnic groups were compared with NHWs.

**Results:** Pre-MSA logistic regression models adjusted for age, gender, education level, language spoken at home, and use of other tobacco products found that Chinese (odds ratio [OR] = 3.38, 95% confidence interval [CI] = 2.19, 5.21), Filipinos (OR = 3.55, 95% CI = 2.73, 4.63), Japanese (OR = 1.99, 95% CI = 1.22, 3.27), and Koreans (OR = 3.22, 95% CI = 2.06, 5.03) were significantly more likely to be LITS than NHWs. Post-MSA, all Asian American subgroups experienced an increase in LITS (11.7%–37.8%); however, only Chinese (OR = 2.19, 95% CI = 1.16, 4.13) and Filipinos (OR = 3.33, 95% CI = 2.26, 4.91) remained significantly more likely to be LITS than NHWs.

**Conclusions:** Results highlight the need for tobacco control efforts addressing the growing group of LITS for Asian Americans and NHWs.

## INTRODUCTION

Asian Americans are proportionately the fastest growing immigrant group in the United States, increasing by 43% from 2000 to 2010 (Hoeffel, Rastogi, Kim, & Shahid, 2012). The leading causes of death among Asian Americans have been related to smoking, including cancer, heart disease, and stroke (Heron, 2012; Ockene & Miller, 1997). These adverse health effects, particularly cardiovascular disease, are also important for light and intermittent smokers (LITS; Bjartveit & Tverdal, 2005; Pope et al., 2009). Approximately one fifth of U.S. smokers are LITS (Centers for Disease Control and Prevention, 2008), and the number is projected to continue increasing in the coming years (Fagan & Rigotti, 2009; Schane, Ling, & Glantz, 2010). California leads the nation with over one third of its smokers being LITS (Al-Delaimy, Edland, Pierce, Mills, & White, 2011).

Studies have found that Asian Americans are more likely to be LITS than non-Hispanic Whites (NHWs; Benowitz,

Pérez-Stable, Herrera, & Jacob, 2002; Fagan & Rigotti, 2009; Maxwell, Crespi, Alano, Sudan, & Bastani, 2012; Tong, Nguyen, Vittinghoff, & Pérez-Stable, 2009; Trinidad, Pérez-Stable, White, Emery, & Messer, 2011). However, many studies only considered Asian Americans as a heterogeneous population and only examined smoking behaviors cross-sectionally. Aggregating Asian American ethnic groups can mask important differences for specific groups. A cross-sectional study examining smoking prevalence among disaggregated Asian Americans found rates to be twice as high among Korean and Vietnamese American men compared with Chinese and Japanese American men (Maxwell et al., 2012). The current study examines LITS among Asian American ethnic groups relative to NHWs in California utilizing data from the California Tobacco Surveys (CTS) across two time periods, before and after the 1998 Master Settlement Agreement (MSA).

The MSA, signed in November 1998 by 46 State Attorneys General and the largest tobacco companies, resulted in a

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number of important changes in tobacco control including advertisement restrictions on tobacco, tax increases, monetary funds for advocacy groups, and the making of tobacco industry documents available to the public (Sloan & Trogdon, 2004; State of California Department of Justice, 2012; Sung, Hu, Ong, Keeler & Sheu, 2005). The MSA represents a significant event in tobacco control and is therefore used as a specific time point to divide the data and examine differences in smoking behaviors. We hypothesized that rates of LITS would increase after the MSA, with significantly higher proportions of Asian American ethnic groups being LITS compared with NHWs. Examining LITS before and after the MSA among Asian American ethnic groups will provide valuable information to practitioners, policy makers, and public health officials in focusing tobacco control efforts.

## METHODS

The CTS are representative population surveys of adults in California conducted approximately every 3 years from 1990 to 2008 (Al-Delaimy, Edland, Pierce, Mills, & White, 2009). Data collected from these surveys were analyzed in 2013. Pre-MSA data ( $n = 41,398$ ) included individuals who self-identified as Japanese ( $n = 472$ ), Chinese ( $n = 565$ ), Filipino ( $n = 967$ ), Korean ( $n = 178$ ), and NHWs ( $n = 39,216$ ). Data from post-MSA ( $n = 37,035$ ) included Japanese ( $n = 713$ ), Chinese ( $n = 1,404$ ), Filipino ( $n = 1,342$ ), Korean ( $n = 305$ ), and NHWs ( $n = 33,271$ ). All surveys were conducted in English. Data from 1990, 1992, and 1996 (pre-MSA) were combined and compared with data from 1999, 2002, 2005, and 2008 (post-MSA) to examine changes in LITS prior to and after the MSA. Although response rates for the CTS have declined over time, analyses indicate samples have been representative of the California population (Al-Delaimy et al., 2009).

Respondents were classified as ever-smokers if they responded “yes” to “Have you ever smoked 100 cigarettes?” Ever-smokers were further asked, “Do you now smoke every day, some days, or not at all?” and classified into daily smokers, intermittent smokers, and former smokers, respectively. LITS includes daily smokers who smoked fewer than 10 cigarettes a day and intermittent smokers. Demographic measures included age (18–34, 34–49, 50–64, and 65+), gender, educational level (less than high school, high school graduate, some college or vocational school, and college graduate or higher), self-reported race/ethnicity, and language spoken at home (English or all other).

Data were analyzed using SAS version 9.3 (SAS Institute, Cary, NC). The CTS data include sets of replicate survey weights for use with jackknife procedures (Efron, 1982). Estimates were weighted accounting for selection probabilities and adjusted for survey nonresponse (Bureau of Labor Statistics, U.S. Census Bureau, 2002). Demographic information, including the variance estimates, was calculated using SAS Proc Surveymeans and Surveyfreq. Two logistic regression models were fit (pre-MSA and post-MSA) to compare LITS between Asian American groups and NHWs. Models were adjusted for use of other tobacco products and potential demographic confounders, including age, level of education, gender, and language spoken at home. The logistic regressions were conducted using SAS Proc Surveylogistic. Further methodological information for the CTS is described elsewhere (Al-Delaimy et al., 2011).

## RESULTS

Demographic characteristics and smoking prevalence rates for Asian American ethnic groups are presented in Table 1. Pre-MSA, there were statistically significant larger proportions of LITS among Chinese (63.2%, 95% confidence interval [CI] = 58.2, 68.3), Filipinos (62.3%, 95% CI = 59.1, 65.4), Japanese (49.3%, 95% CI = 43.7, 55.1), and Koreans (67.3%, 95% CI = 62.7, 71.9) compared with NHWs (33.1%, 95% CI = 32.7, 34.0). All Asian American ethnic groups (Chinese: 76.2%, 95% CI = 70.5, 81.8; Filipino: 75.9%, 95% CI = 72.7, 79.2; Japanese: 67.9%, 95% CI = 62.1, 73.6; Korean: 75.2%, 95% CI = 69.7, 80.6) and NHWs (49.1%, 95% CI = 48.4, 49.8) experienced an increase in LITS rates post-MSA. The factor increase from pre-MSA to post-MSA was 20.4% for Chinese, 21.9% for Filipinos, 37.8% for Japanese, 1.7% for Koreans, and 48.2% for NHWs (see Figure 1).

After adjusting for potential demographic confounders in pre-MSA analyses, Chinese (odds ratio [OR] = 3.38, 95% CI = 2.19, 5.21;  $p < .001$ ), Filipinos (OR = 3.55, 95% CI = 2.73, 4.63;  $p < .001$ ), Japanese (OR = 1.99, 95% CI = 1.22, 3.27;  $p < .005$ ), and Koreans (OR = 3.22, 95% CI = 2.06, 5.03;  $p < .001$ ) were significantly more likely to be LITS compared with NHWs. Post-MSA, only Chinese (OR = 2.19, 95% CI = 1.16, 4.13;  $p < .05$ ) and Filipinos (OR = 3.33, 95% CI = 2.26, 4.91;  $p < .001$ ) had significantly higher LITS rates than NHWs (Japanese: OR = 1.78, 95% CI = 0.94, 3.38;  $p > .05$ ; Korean: OR = 1.36, 95% CI = 0.70, 2.64,  $p > .05$ ).

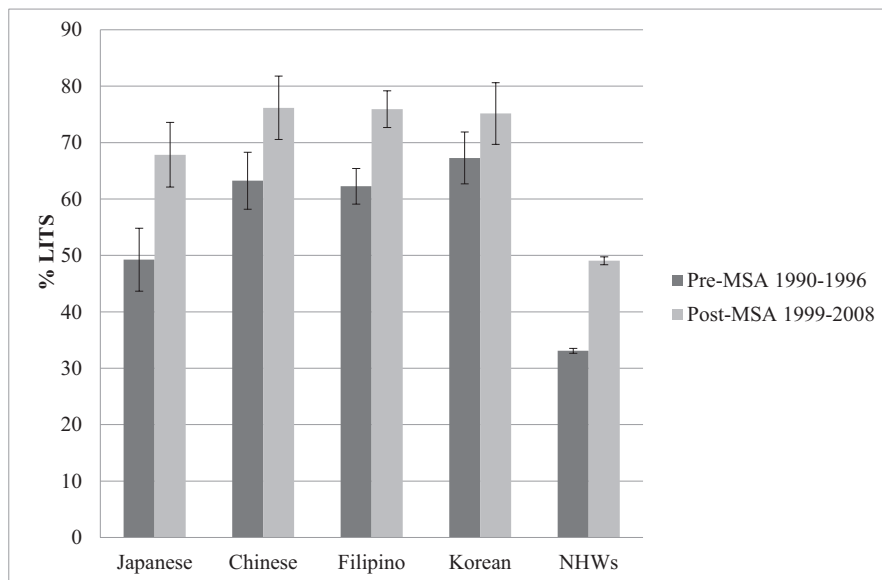
## DISCUSSION

To our knowledge, this is the first study to examine trends in LITS among Asian American groups since the 1990s. Although studies have examined smoking rates in Chinese, Filipino, Japanese, and Koreans cross-sectionally, none have examined smoking rates across these various groups over a 20-year period. Pre-MSA, all Asian American groups were more likely to be LITS than NHWs, similar to previous research (Benowitz et al., 2002; Fagan & Rigotti, 2009; Maxwell et al., 2012; Tong et al., 2009; Trinidad et al., 2011). Post-MSA, LITS rates increased for all Asian American groups and NHWs. However, the increase for NHWs was more pronounced such that only Chinese and Filipinos were significantly more likely to be LITS than NHWs by 2008. The distinct increase in LITS among all racial/ethnic groups examined is a unique finding, and a shift from heavy smoking to LITS is evident in the current results and demonstrates a changing smoking topography. Policies associated with the MSA, such as tax increases on cigarettes and other changes in tobacco control in California, such as clean air laws, have been shown to reduce smoking prevalence and consumption in smokers (Chaloupka, Straif, & Leon, 2011; Gilpin, Farkas, Emery, Ake, & Pierce, 2002) and likely contributed to the increase in LITS. These findings highlight the importance of focusing future tobacco control efforts on LITS.

Asian Americans are more likely to be LITS (Hassmiller, Warner, Mendez, Levy, & Romano, 2003; Wortley, Husten, Trosclari, Chrismon, & Pederson, 2003), and LITS have been shown to have increased aspirations to quit smoking (Tong et al., 2009; Tong, Ong, Vittinghoff, & Pérez-Stable, 2006). However, tobacco cessations programs specific to Asian Americans, particularly LITS, are relatively sparse (Lawrence, Graber, Mills, Meissner, & Warnecke, 2003) and are therefore

**Table 1.** Demographic Characteristics and Smoking Prevalence of Asian American Ethnic Groups

	Japanese			Chinese			Filipino			Korean			Non-Hispanic Whites		
	<i>N</i>	%	CI	<i>N</i>	%	CI	<i>N</i>	%	CI	<i>N</i>	%	CI	<i>N</i>	%	CI
<b>Pre-Master Settlement Agreement</b>															
Total sample	472			565			967			178			39,216		
Gender (% male)	233	51.3	4.9	309	47.8	4.3	541	48.2	3.4	95	40.8	7.7	18,245	49.4	0.4
Age, years ( <i>M, SD</i> )		47.7	1.1		36.5	0.5		41.2	0.7		33.8	1.0		45.2	0.1
Education level															
<High school	20	12.9	5.4	17	4.9	2.9	57	12.4	3.3	8	8.1	7.3	2,936	12.0	1.6
High school	125	31.1	5.7	73	8.9	2.5	196	21.6	3.0	28	23.0	9.1	11,867	28.1	1.3
Some college	163	27.8	4.7	180	29.9	4.0	357	26.7	3.3	72	32.1	8.2	14,141	30.7	0.6
College graduate	164	28.7	4.4	295	45.3	4.6	357	39.3	3.3	70	36.7	8.1	10,268	29.2	0.4
Ever-smokers	318	43.9	5.4	254	18.3	2.1	601	35.2	3.2	119	42.5	8.1	29,715	52.2	0.6
Current smokers	164	17.1	3.8	132	7.5	1.3	331	13.9	1.7	81	20.4	4.1	13,348	21.7	0.4
Smoking consumption															
LITS	83	49.3	11.4	91	63.2	10.3	218	62.3	6.5	52	67.3	9.4	5,558	33.1	0.9
Daily, >10	82	50.7	11.4	43	36.8	10.3	115	37.7	6.5	30	32.7	9.4	11,144	66.9	0.9
<b>Post-Master Settlement Agreement</b>															
Total sample	713			1,404			1,342			305			33,271		
Gender (% male)	302	44.4	7.0	689	49.3	4.1	640	49.6	4.3	154	50.8	9.7	15,274	49.6	1.0
Age, years ( <i>M, SD</i> )		52.1	0.9		42.0	0.5		43.6	0.8		36.4	1.2		48.1	0.1
Education level															
<High school	12	4.4	3.4	20	3.1	3.0	48	7.4	3.3	11	2.1	1.7	1,816	6.3	0.2
High school	118	24.3	6.8	140	12.8	3.5	229	17.5	3.4	47	21.2	10.0	8,589	22.6	0.5
Some college	225	27.0	6.6	355	19.2	3.4	513	32.9	3.6	85	20.1	4.7	12,418	31.2	1.1
College graduate	358	44.3	7.1	879	65.0	4.4	541	42.1	3.9	161	56.5	9.6	10,225	39.9	1.0
Ever-smokers	320	35.3	6.1	339	19.4	3.3	540	28.6	3.2	140	31.0	7.0	21,638	46.6	0.7
Current smokers	130	8.0	2.2	154	6.3	1.6	273	11.0	1.9	77	13.9	3.7	11,664	16.1	0.2
Smoking consumption															
LITS	84	67.9	11.7	111	76.2	11.5	200	75.9	6.6	49	75.2	11.1	5,347	49.1	1.4
Daily, >10	41	32.1	11.7	40	23.8	11.5	68	24.1	6.6	28	24.8	11.1	5,876	50.9	1.4

**Figure 1.** Rates of light and intermittent smoking among California Asian American Groups and non-Hispanic Whites, before and after the Master Settlement Agreement, California Tobacco Surveys 1990–2000.

much needed. The CTSs were conducted in English and not language of origin, so the Asian American groups represented here may be more acculturated rather than those with limited

English proficiency. Analyses using the California Health Interview Survey (CHIS) conducted in native languages found higher rates of LITS among Asian Americans compared with

NHWs (Tong et al., 2009), which support the current study's pre-MSA (1998–2008) findings. Nonetheless, there may be significant differences for Asian American groups that have limited English proficiency.

Some other limitations should be noted. CTS data were obtained by self-report, and information on smoking status was not biochemically validated. Small sample sizes did not provide ample statistical power to examine other Asian ethnic groups separately (e.g., Vietnamese) or gender differences within the groups examined. This population reflects California only, where smoking prevalence is lower for Asian Americans than in non-Western regions (Chae, Gavin, & Takeuchi, 2006). Future studies should take these factors into consideration. Differences between daily light smokers and nondaily smokers may reflect upon diverse social and cultural contexts. Further research should examine immigration status and extraneous social and cultural factors that influence smoking behavior among disaggregated Asian groups. Examining such research could help explain why Chinese and Filipinos were significantly more likely than NHWs to be LITS post-MSA.

Since the 1990s, LITS has increased by 29% in California (Gilpin et al., 2003). Shifts in smoking consumption patterns, from heavy daily smoking to LITS, have been associated with tobacco control policies enacted after the MSA (Schane, Glantz, & Ling, 2009; Shiffman, 2009). Increasing rates of LITS is a growing concern to tobacco control practitioners, policy makers, and public health professionals as efforts to reduce smoking in such groups present a significant challenge because they may be less likely to consider or label themselves as “smokers” (Schane et al., 2010). In order to address LITS, research should examine environmental and social cues that reinforce the desire to smoke (Shiffman, 2009) because LITS do not seem to be driven by nicotine withdrawal (Tindle & Shiffman, 2011). Furthermore, nondaily Asian American smokers have reported less medical provider advice to quit smoking than daily smokers (Tong, Tang, Chen, & McPhee, 2011). With the adverse health effects related to LITS (Bjartveit & Tverdal, 2005; Pope et al., 2009) and high LITS rates among Asian Americans, it is important that future efforts focus on LITS within this population. Tailored cessation programs, physician advice, and increases and reinforcement in tobacco taxes policies resulting from the MSA may influence smoking behaviors. Future research should focus on addressing factors associated with LITS among disaggregated ethnic groups. Although California has made great strides in tobacco control and has experienced a faster decline in cigarette smoking compared with the rest of the United States (Cowling & Yang, 2010), this study highlights the need for focused tobacco control efforts to address this growing group of smokers not just for Asian Americans, but also for NHWs.

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## DECLARATION OF INTERESTS

None declared.

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None of the authors of this manuscript have any current or past commercial associations that might pose a conflict of interest.

## REFERENCES

- Al-Delaimy, W. K., Edland, S., Pierce, J. P., Mills, A. L., & White, M. M. (2009). *Technical report on analytic methods and approaches used in the 2008 California Tobacco Survey analysis. Vol 1: Data Collection Methodology*. La Jolla, CA: University of California, San Diego. Retrieved from [http://libraries.ucsd.edu/ssds/pub/CTS/cpc00009/2008%20TECHNICAL%20REPORT\\_Vol%201.pdf](http://libraries.ucsd.edu/ssds/pub/CTS/cpc00009/2008%20TECHNICAL%20REPORT_Vol%201.pdf)
- Al-Delaimy, W. K., Edland, S., Pierce, J. P., Mills, A. L., & White, M. M. (2011). California Tobacco Survey (CTS): 2008 (Version 1). Retrieved from <http://hdl.handle.net/UCSD/10026> California Department of Health Services
- Benowitz, N. L., Pérez-Stable, E. J., Herrera, B., & Jacob, P., 3rd. (2002). Slower metabolism and reduced intake of nicotine from cigarette smoking in Chinese-Americans. *Journal of the National Cancer Institute*, 94, 108–115. doi:10.2105/AJPH.92.5.785
- Bjartveit, K., & Tverdal, A. (2005). Health consequences of smoking 1–4 cigarettes per day. *Tobacco Control*, 14, 315–320. doi:10.1136/tc.2005.011932
- Bureau of Labor Statistics, U.S. Census Bureau. (2002). *Current Population Survey: Design and Methodology (Technical Paper 63RV)*. Washington, DC: U.S. Department of Commerce. Retrieved from [www.census.gov/prod/2002pubs/tp63rv.pdf](http://www.census.gov/prod/2002pubs/tp63rv.pdf)
- Centers for Disease Control and Prevention. (2008). Cigarette smoking among adults—United States, 2007. *Morbidity and Mortality Weekly Report*, 57, 1221–1226. Retrieved from [www.cdc.gov/mmwr/preview/mmwrhtml/mm5745a2.htm](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5745a2.htm)
- Chae, D. H., Gavin, A. R., & Takeuchi, D. T. (2006). Smoking prevalence among Asian Americans: Findings from the National Latino and Asian American Study (NLAAS). *Public Health Reports (Washington, D.C.: 1974)*, 121, 755–763. PMID:PMC1781917
- Chaloupka, F. J., Straif, K., & Leon, M. E. (2011). Effectiveness of tax and price policies in tobacco control. *Tobacco Control*, 20, 235–238. doi:10.1136/tc.2010.039982
- Cowling, D. W., & Yang, J. (2010). Smoking-attributable cancer mortality in California, 1979–2005. *Tobacco Control*, 19(Suppl. 1), i62–i67. doi:10.1136/tc.2009.030791
- Efron, B. (1982). *The Jackknife, the bootstrap and other resampling plans. CBMS-NSF Regional conference series in applied mathematics*, 38. Philadelphia, PA: Society for Industrial and Applied Mathematics.
- Fagan, P., & Rigotti, N. A. (2009). Light and intermittent smoking: The road less traveled. *Nicotine & Tobacco Research*, 11, 107–110. doi:10.1093/ntn/ntn015
- Gilpin, E. A., Farkas, A. J., Emery, S. L., Ake, C. F., & Pierce, J. P. (2002). Clean indoor air: Advances in California, 1990–1999. *American Journal of Public Health*, 92, 785–791. doi:10.1093/ajph.92.5.785
- Gilpin, E. A., White, M. M., White, V. M., Distefan, J. M., Trinidad, D. R., James, L., & Pierce, J. P. (2003). *Tobacco control successes in California: A focus on young people, results from the California tobacco surveys, 1990–2002*. La Jolla, CA: University of California, San Diego. Retrieved from [http://libraries.ucsd.edu/ssds/pub/CTS/cpc00007/2002FINAL\\_RPT.pdf](http://libraries.ucsd.edu/ssds/pub/CTS/cpc00007/2002FINAL_RPT.pdf)
- Hassmiller, K. M., Warner, K. E., Mendez, D., Levy, D. T., & Romano, E. (2003). Nondaily smokers: Who are they? *American Journal of Public Health*, 93, 1321–1327. doi:10.2105/AJPH.93.8.1321



- Heron, M. (2012). Deaths: Leading causes for 2008. *National Vital Statistics Report*, 60, 1–94. Retrieved from [www.cdc.gov/nchs/data/nvsr/nvsr60/nvsr60\\_06.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr60/nvsr60_06.pdf)
- Hoeffel, E. M., Rastogi, S., Kim, M. O., & Shahid, H. (2012, March). *The Asian population: 2010 (Census Brief C2010BR-11)*. Washington, DC: U.S. Census Bureau. Retrieved from [www.census.gov/prod/cen2010/briefs/c2010br-11.pdf](http://www.census.gov/prod/cen2010/briefs/c2010br-11.pdf)
- Lawrence, D., Graber, J. E., Mills, S. L., Meissner, H. I., & Warnecke, R. (2003). Smoking cessation interventions in U.S. racial/ethnic minority populations: An assessment of the literature. *Preventive Medicine*, 36, 204–216. doi:10.1016/S0091-7435(02)00023-3
- Maxwell, A. E., Crespi, C. M., Alano, R. E., Sudan, M., & Bastani, R. (2012). Health risk behaviors among five Asian American subgroups in California: Identifying intervention priorities. *Journal of Immigrant and Minority Health*, 14, 890–894. doi:10.1007/s10903-11-9552-8
- Ockene, I. S., & Miller, N. H. (1997). Cigarette smoking, cardiovascular disease, and stroke: A statement for health-care professionals from the American Heart Association. American Heart Association Task Force on Risk Reduction. *Circulation*, 96, 3243–3247. doi:10.1161/01.CIR.96.9.3243
- Pope, C. A., III, Burnett, R. T., Krewski, D., Jerrett, M., Shi, Y., Calle, E. E., & Thun, M. J. (2009). Cardiovascular mortality and exposure to airborne fine particulate matter and cigarette smoke: Shape of the exposure-response relationship. *Circulation*, 120, 941–948. doi:10.1161/CIRCULATIONAHA.109.857888
- Schane, R. E., Glantz, S. A., & Ling, P. M. (2009). Social smoking implications for public health, clinical practice, and intervention research. *American Journal of Preventive Medicine*, 37, 124–131. doi:10.1016/j.amepre.2009.03.020
- Schane, R. E., Ling, P. M., & Glantz, S. A. (2010). Health effects of light and intermittent smoking: A review. *Circulation*, 121, 1518–1522. doi:10.1161/CIRCULATIONAHA.109.904235
- Shiffman, S. (2009). Light and intermittent smokers: Background and perspective. *Nicotine & Tobacco Research*, 11, 122–125. doi:10.1093/ntr/ntn020
- Sloan, F. A., & Trogdon, J. G. (2004). The impact of the Master Settlement Agreement on cigarette consumption. *Journal of Policy Analysis and Management*, 23, 843–855. doi:10.1002/pam.20050
- State of California Department of Justice. (2012). Master Settlement Agreement. Retrieved from <http://oag.ca.gov/tobacco/msa>
- Sung, H. Y., Hu, T. W., Ong, M., Keeler, T. E., & Sheu, M. L. (2005). A major state tobacco tax increase, the master settlement agreement, and cigarette consumption: The California experience. *American Journal of Public Health*, 95, 1030–1035. doi:10.2105/AJPH.2004.042697
- Tindle, H. A., & Shiffman, S. (2011). Smoking cessation behavior among intermittent smokers versus daily smokers. *American Journal of Public Health*, 101, e1–e3. doi:10.2105/AJPH.2011.300186
- Tong, E. K., Nguyen, T., Vittinghoff, E., & Pérez-Stable, E. J. (2009). Light and intermittent smoking among California's Asian Americans. *Nicotine & Tobacco Research*, 11, 197–202. doi:10.1093/ntr/ntp013
- Tong, E. K., Ong, M. K., Vittinghoff, E., & Pérez-Stable, E. J. (2006). Nondaily smokers should be asked and advised to quit. *American Journal of Preventive Medicine*, 30, 23–30. doi:10.1016/j.amepre.2005.08.048
- Tong, E. K., Tang, H., Chen, M. S., Jr., & McPhee, S. J. (2011). Provider smoking cessation advice among California Asian-American smokers. *American Journal of Health Promotion*, 25(Suppl. 5), S70–S74. doi:10.4278/ajhp.100611-QUAN-186
- Trinidad, D. R., Pérez-Stable, E. J., White, M. M., Emery, S. L., & Messer, K. (2011). A nationwide analysis of US racial/ethnic disparities in smoking behaviors, smoking cessation, and cessation-related factors. *American Journal of Public Health*, 101, 699–706. doi:10.2105/AJPH.2010.191668
- Wortley, P. M., Husten, C. G., Trosclair, A., Chrismon, J., & Pederson, L. L. (2003). Nondaily smokers: A descriptive analysis. *Nicotine & Tobacco Research*, 5, 755–759. doi:10.1080/1462220031000158753