

## **THE EFFECT OF SMOKEFREE AIR ORDINANCES ON SMOKING PREVALENCE AND CESSATION**

November 2004

***“Total prohibition of smoking in the workplace strongly affects industry volume. Smokers facing these restrictions consume 11-15% less than average and quit at a rate that is 84% higher than average... Milder workplace restrictions, such as smoking only in designated areas have much less impact on quitting rates and very little effect on consumption.”***

*—Philip Morris (1992)<sup>1</sup>*

- A study undertaken by researchers at the University of California, San Francisco investigated the effects of smokefree workplaces on smoking prevalence and cigarette consumption. Twenty-six studies on workplaces in the United States, Australia, Canada, and Germany were subjected to a process of systematic review and meta-analysis. Entirely smokefree workplaces were associated with a 3.8% reduction in smoking prevalence. Of those employees who continued to smoke, there was an average reduction in consumption of 3.1 fewer cigarettes per day. The combined effects of increased cessation and decreased consumption corresponded to a 29% relative reduction in tobacco use among all employees.<sup>2</sup>
- In 1993, the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) mandated that all hospitals seeking accreditation go smokefree. A study conducted through the University of Missouri-Columbia investigated whether the rate of smoking cessation was higher among hospital employees than among other community employees not subject to a smokefree workplace policy. A total of 1,849 current or former smokers participated in the study over a period of three years. Hospital employees were found to be almost twice as likely as other community employees to quit smoking and tended to take a shorter time to quit.<sup>3</sup>
- Researchers at the University of California, Berkeley and the University of California, San Francisco investigated the effect of local workplace smoking laws in California on smoking cessation. Data from the 1990 California Tobacco Survey was used to collect information about 4,680 adult indoor smokers. The results of the study revealed that smokefree ordinances significantly increased the rate of smoking cessation and did so along a “dose-response” relationship – the stronger the ordinance, the higher the rate of cessation. While there was only a 19.1% cessation rate in areas with no ordinance, there was a 24.6% cessation rate in areas with weak ordinances, and a 26.4% cessation rate in areas with strong ordinances. Overall, researchers found that smokers who worked in communities with strong ordinances were 38% more likely to quit smoking than smokers in communities with no ordinance.<sup>4</sup>
- Massachusetts introduced a comprehensive tobacco control program in 1993 that brought together four elements of tobacco control: a cigarette tax increase; a mass media campaign; services for cessation and educational outreach; and the promotion of local smokefree ordinances. Prior to the program’s implementation, the annual decline in cigarette consumption for Massachusetts adults was comparable to that for the rest of the nation (3-4% between 1988 and 1992). The year following the program’s implementation (1992-3), consumption in Massachusetts dropped 12% while it remained steady for the rest of the nation at 4%. After 1993, the annual decline in

cigarette consumption leveled off in comparison states (declining less than 1% a year). In Massachusetts, however, consumption continued to decline by more than 4% a year.<sup>5</sup>

- Workplace smoking restrictions can significantly reduce smoking rates among young adults according to a study published in the *Journal of the American Medical Association (JAMA)*. Researchers used data from the Current Population Surveys from 1992-1993 and 1995-1996 to question 17,185 adolescents between the ages of 15 and 17. Adolescents who worked in a smokefree workplace were found to be 32% less likely to smoke than adolescents who worked in a workplace with no smoking restrictions. Household smoking restrictions were also found to significantly reduce adolescent cigarette consumption and increase cessation rates.<sup>6</sup>
- Supplemental tobacco questionnaires were included in a series of national surveys conducted between September 1992 and May 1993. A total of 97,882 indoor workers were questioned regarding their smoking behavior and the smoking policies at their place of work. Researchers found that a 100% smokefree workplace was associated with a 6% reduction in smoking prevalence and a 14% decrease in the average daily cigarette consumption of smokers relative to workplaces with weak or no smoking restrictions. These results were found to be true for all demographic groups and in nearly all industries.<sup>7</sup>
- The Community Intervention Trial for Smoking Cessation (COMMIT) surveyed the behavior of 8,271 cigarette smokers in 22 North American communities between 1988 and 1993. Participants were questioned regarding their tobacco use behaviors, demographic characteristics, and workplace smoking policies. Employees in smokefree workplaces were found to be 25% more likely to make a serious attempt to quit smoking and 25% more likely to succeed than employees not subject to a smokefree workplace policy. Among continuing smokers, those in smokefree workplaces smoked an average of 2.75 fewer cigarettes a day.<sup>8</sup>
- A study published through the National Bureau of Economic Research investigated the effect of work area smoking bans on smoking behavior. Data from the 1991 and 1993 National Health Interview Surveys was used to obtain data for over 18,000 workers. Researchers found that workplace smoking bans are associated with a 5% to 6% decline in smoking prevalence and an average reduction in cigarette consumption of 2.3 cigarettes per day per smoker.<sup>9</sup>

### **What the Tobacco Industry thinks about workplace smoking restrictions...**

- “Smoking bans are the biggest challenge we have ever faced. Quit rate goes from [sic] 5% to 21% when smokers work in nonsmoking environments.”<sup>10</sup>
- “The immediate implication for our business is clear: if our consumers have fewer opportunities to enjoy our products, they will use them less frequently and the result will be an adverse impact on our bottom line.”<sup>11</sup>
- “Those who say they work under [smoking] restrictions smoked about one-and-one-quarter fewer cigarettes each day than those who don’t. That may sound light but remember we’re talking about light restrictions, too. Those 220 people in our survey who work under smoking restrictions represent some 15 million Americans. That one-and-one-quarter per day cigarette reduction, then,

means nearly 7 billion fewer cigarettes smoked each year because of workplace smoking restrictions... At a dollar a pack, even the lightest of workplace smoking restrictions is costing this industry 233 million dollars a year in revenue. How much more will it cost us with far more restrictive laws such as those in Suffolk County and Fort Collins now being enacted?"<sup>12</sup>

## REFERENCES

- 
- <sup>1</sup> Heironimus, J., "Impact of Workplace Restrictions on Consumption and Incidence," *Philip Morris*, December 2, 1992, Bates No: 2023914280-4284. Download at <http://legacy.library.ucsf.edu/tid/rvv24e00>. Accessed on November 5, 2004.
- <sup>2</sup> Fichtenberg, C.M.; Glantz, S.A., "Effect of smoke-free workplaces on smoking behavior: systematic review," *British Medical Journal* 325: 188-191, July 27, 2002.
- <sup>3</sup> Longo, Johnson, Kruse, Brownson, and Hewett, "A Prospective Investigation of the Impact of Smoking Bans on Tobacco Cessation and Relapse," *Tobacco Control*, 2001.
- <sup>4</sup> Moskowitz, Lin, and Hudes, "The Impact of Workplace Smoking Ordinances in California on Smoking Cessation," *American Journal of Public Health*, May 2000.
- <sup>5</sup> Biener, Harris, and Hamilton, "Impact of the Massachusetts tobacco control programme: population based trend analysis," *British Medical Journal*, August 2000.
- <sup>6</sup> Farkas, Gilpin, White, and Pierce, "Association Between Household and Workplace Smoking Restrictions and Adolescent Smoking," *Journal of the American Medical Association*, August 9, 2000.
- <sup>7</sup> Farrelly, Evans, and Sfekas, "The impact of workplace smoking bans: results from a national survey," *Tobacco Control*, Autumn 1999.
- <sup>8</sup> Glasgow, Cummings, Hyland, "Relationship of worksite smoking policy to changes in employee tobacco use: findings from COMMIT," *Tobacco Control*, 1997.
- <sup>9</sup> Evans, Farrelly, and Montgomery, "Do Workplace Smoking Bans Reduce Smoking?" *NBER Working Paper Series 5567*, May 1996.
- <sup>10</sup> [n.a.], "ETS World Conference," *Philip Morris*, April 1994, Bates No: 2054893642-3656. Download at <http://legacy.library.ucsf.edu/tid/nyg12a00>. Accessed on November 5, 2004.
- <sup>11</sup> Walls, T. "CAC Presentation Number 4: Tina Walls – Introduction," *Philip Morris*, July 8, 1994, Bates No: 2041183751-3790. Download at <http://legacy.library.ucsf.edu/tid/vnf77e00>. Accessed on November 5, 2004.
- <sup>12</sup> [n.a.], "Public Smoking: The Problem (SDC Introduction)," *Tobacco Institute*, [n.d.], Bates No: TIMN0014554-4565. Download at <http://legacy.library.ucsf.edu/tid/mqo03f00>. Accessed on November 5, 2004.