

Smoking, exposure to secondhand smoke, and smoking restrictions in Tijuana, Mexico

Ana P. Martínez-Donate,¹ Melbourne F. Hovell,¹ C. Richard Hofstetter,¹
Guillermo J. González-Pérez,² Marc A. Adams,¹ José de Jesús Sánchez,³
and Gabriela Guzmán-Cerda¹

Suggested citation

Martínez-Donate AP, Hovell MF, Hofstetter CR, González-Pérez GJ, Adams MA, Sánchez JJ, Guzmán-Cerda G. Smoking, exposure to secondhand smoke, and smoking restrictions in Tijuana, Mexico. *Rev Panam Salud Publica*. 2005;18(6):412-7.

ABSTRACT

Objective. To estimate the prevalence of tobacco use, exposure to secondhand smoke, and smoking restrictions in the home and workplace among residents of Tijuana, one of Mexico's largest cities.

Methods. This cross-sectional household survey was conducted in Tijuana, Baja California, Mexico, during 2003 and 2004. A population-based sample of 400 Tijuana adult residents responded to a tobacco survey, and 397 of the surveys were analyzed.

Results. About 22.9% (95% confidence interval (CI): 18.7%–27.1%) of Tijuana adults reported current smoking, and 53.9% (95% CI: 48.8%–58.9%) reported chronic exposure to secondhand smoke. Approximately 44.4% (95% CI: 37.9%–50.9%) of Tijuana adults had a nonsmoking policy in their workplace, while 65.8% (95% CI: 61.0%–70.6%) of Tijuana households were smoke-free.

Conclusions. The results underline the need for increased tobacco control efforts, particularly stricter enforcement of existing passive smoking regulations, in order to expand protection from secondhand smoke from private settings to public ones and to curb the tobacco epidemic in Tijuana and elsewhere in Mexico.

Key words

Smoking, tobacco smoke pollution, environmental exposure, family health, health policy, Mexico.

¹ San Diego State University, Graduate School of Public Health, Center for Behavioral Epidemiology and Community Health, San Diego, California, United States of America. Send correspondence to: Ana P. Martínez-Donate, San Diego State University, Graduate School of Public Health, Center for Behavioral Epidemiology and Community Health, 9245 Sky Park Court, Suite 230, San Diego, CA 92123, United States; telephone: (858) 505-4770 x111; fax: (858) 505-8614; e-mail: amartinez@projects.sdsu.edu; Web site: <http://www.sci.sdsu.edu/c-beach>

² Universidad de Guadalajara, University Center of Health Sciences, Center for Studies on Population, Health, and Human Development, Guadalajara, Jalisco, Mexico.

Smoking and passive smoking represent leading public health problems in Mexico (1–3). Over the last decade, Mexico has developed tobacco control measures to curb the tobacco epidemic, including laws to protect nonsmokers from passive smoking (1, 4). These measures should be comple-

³ Universidad Autónoma de Baja California, Department of Psychology, Tijuana, Baja California, Mexico.

mented with surveillance of key tobacco control outcomes, such as the prevalences of such things as smoking, passive smoking, smoke-free policies; societal sentiments against smoking; and physician advice related to smoking cessation and the avoidance of secondhand smoke. The last Mexican national surveys on passive smoking (2) and on tobacco use (3) date from 1998 and 2000, respectively. To our knowl-

edge, no data are available on the prevalence of smoking restrictions in Mexico, and little is known regarding general attitudes about exposure to secondhand smoke and smoke-free legislation in the country. Monitoring these indicators would help evaluate the effectiveness of current tobacco control policies and inform efforts to reduce rates of smoking and passive smoking in Mexico.

This paper presents prevalence estimates of smoking, exposure to secondhand smoke, smoke-free home and workplace policies, and support for legislation prohibiting smoking in public places among residents of Tijuana, Baja California, Mexico. Tijuana is one of the largest cities in Mexico, with 1 210 820 inhabitants as of the year 2000 (5).

MATERIALS AND METHODS

A cross-sectional household survey was conducted in Tijuana during 2003 and 2004 as part of a larger international study called Project SanTiGua.⁴ The larger study was aimed at examining the prevalence and determinants of smoking, exposure to secondhand smoke, and household restrictions on smoking among individuals of Mexican descent, with emphasis on the influence of acculturation and migration. The study includes three cities: San Diego (California, United States), Tijuana (Baja California, Mexico), and Guadalajara (Jalisco, Mexico). San Diego and Tijuana are sister cities, located across from each other on the United States-Mexico border. Guadalajara is located in west central Mexico, approximately 1 920 km (1 190 mi) from San Diego and Tijuana. These three cities represent different levels of exposure to United States culture as well as three points along the migration path between Mexico and the United States. Guadalajara is located in one of the states with the highest

rates of out-migration to the United States. Tijuana is an intermediate point of destination, where Mexican migrants and immigrants to the United States may stay either temporarily (while making arrangements to cross the border) or permanently. San Diego represents the final destination for many Mexican migrants and immigrants in the United States.

For the Tijuana survey we used a probability-based multistage sampling design, with census tracts, city blocks, and households as sampling units. A population-based sample of Tijuana households was selected. In each household the target individual who was invited to participate in the survey was the resident adult with the most recent birthday. The response rate was 58.6%, calculated as interviews completed divided by the number of target individuals approached. About 7.7% of targeted individuals refused to participate, while the remaining 33.7% could not be contacted after at least four attempts on different days and at different times. Nonresponses were systematically replaced by newly selected households. Sampling and recruitment procedures continued until the estimated *n* size (*n* = 400) was achieved. Additional information on specific sampling and replacement procedures is available from the first author (APMD) upon request.

Taking into account estimates of current smoking and exposure to secondhand smoke in Mexico, we estimated that a sample size of 400 would allow us to generate two-sided 95% confidence intervals (CIs) extending 4% and 5% from the expected smoking rate and passive smoking rate, respectively. Four hundred individuals were surveyed. Three respondents had to be excluded from these analyses due to incomplete data or lost interview protocols. Data from 397 respondents were analyzed. The final sample included 211 females and 186 males, aged 18–94 years (mean = 38.4, standard deviation = 15.0). By age group, 134 respondents were 18–29 years old, 181 were 30–49 years old, and 82 were 50 or older. Information was collected through face-to-face interviews (90%)

and telephone interviews (10%), administered by trained local interviewers. The survey was pilot-tested and refined prior to its implementation. Informed consent was obtained from all study participants. Study procedures were reviewed and approved by the Committee for the Protection of Human Subjects at San Diego State University.

Respondents were classified as “current smokers” if they reported ever having smoked 100 cigarettes and they currently smoked some days or every day. Passive smoking was assessed based on reported exposure to the smoke of other people’s cigarettes on a typical day inside the home, the workplace, other indoor venues, and a car. With regard to smoking restrictions, individuals reporting that smoking was not allowed inside their homes were classified as having a smoke-free policy in the home. Those who reported that smoking was not allowed inside their workplace were classified as having a workplace smoke-free policy. (For this subject we restricted our analyses to respondents who reported that they worked in the city of Tijuana. This restriction was included because 26 respondents were working in other cities, including San Diego (California) and Rosarito and Ensenada (Baja California). The survey included questions on attitudes toward secondhand smoke, preference for working in smoke-free workplaces, and support for legislation banning smoking in different public places, including workplaces, restaurants, public transportation, schools, and health centers. These variables were assessed using a 3-point ordinal scale (1 = strongly agree; 2 = somewhat agree; 3 = do not agree at all).

Data were weighted to match the gender and age distribution of the adult Tijuana population, according to the 2000 Mexico census. We estimated prevalence rates and 95% CIs and tested for significant differences by gender, age group, and smoking status by means of the chi-square and likelihood ratio statistics. Two software packages were used for the statistical analyses: SPSS for Windows version 10 (SPSS Inc., Chicago, Illinois, United

⁴ Project SanTiGua. Tobacco-related Diseases Research Program, University of California, Grant # 11RT-0148, 7/1/2002–7/1/2006, Melbourne F. Hovell, Principal Investigator.

States) and Intercooled Stata 7.0 (Stata-Corp LP, College Station, Texas, United States).

RESULTS

An estimated 29.7% of males and 16.1% of females were current smokers, with a significant gender difference (Table 1). Smoking rates increased significantly with age, with prevalence rates ranging from 14.8% among the youngest individuals to 25.4% among individuals aged 50 years and older. Reported exposure to secondhand smoke was highest in workplaces (31.8%) and lowest in the home (12.2%). An estimated 23.6% of the adults reported exposure to secondhand smoke in cars (95% CI: 19.2%–28.0%), while 29.4% reported secondhand smoke exposure in other indoor venues (95% CI: 24.7%–34.1%). Overall, 60.3% of the males and 47.4% of the females were exposed to secondhand smoke, with females being less likely to report passive smoking than males. Reported passive smoking decreased significantly with age. Rates of exposure to secondhand

smoke in the workplace, a car, other indoor places, and overall were highest among individuals 18–29 years old and lowest among individuals 50 and older. Compared to nonsmokers, smokers had lower prevalence rates of smoke-free households (47.4% vs. 71.3%) and smoke-free workplaces (33.1% vs. 48.2%). No significant gender or age differences were found for reported rates of smoking restrictions in the home and in the workplace.

About 70.7% (95% CI: 66.1%–75.4%) of Tijuana residents strongly agreed that they feel bothered when someone smokes around them, 78.3% (95% CI: 74.0%–82.6%) strongly agreed that they prefer to work in a smoke-free workplace, and 85.1% (95% CI: 81.3%–88.8%) supported laws banning smoking in the workplace. Overall, our data suggested that women held more negative attitudes toward passive smoking than men did; women were also more likely to feel bothered by other people's smoking (75.1% vs. 66.3%, $P = 0.055$), prefer to work in a smoke-free environment (84.8% vs. 71.9%, $P = 0.002$), and support legislation prohibiting smoking in workplaces (88.2% vs. 81.9%, $P = 0.080$).

The percentage of respondents who reported feeling bothered by other people's smoking and preferring to work in a smoke-free workplace did not differ significantly by age. However, support for smoke-free laws for workplaces did increase significantly with age. Nonsmokers were more likely than smokers to feel bothered by secondhand smoke (82.6% vs. 30.3%, $P < 0.001$), prefer to work in smoke-free workplaces (86.8% vs. 49.4%, $P < 0.001$), and support nonsmoking laws for workplaces (89.3% vs. 70.5%, $P < 0.001$).

The large majority of respondents reported being in favor of legislation banning smoking in other public places besides the workplace (Table 2). The degree of support for smoke-free laws applying to various public places ranged from 78.6% for restaurants to 95.3% for health centers. Supportive attitudes toward nonsmoking laws did not vary significantly by gender, but increased significantly with age. As in the case of workplaces, smokers were also less likely than were nonsmokers to support smoking legal restrictions in restaurants, public transportation, and schools.

TABLE 1. Population prevalence estimates (%) and 95% confidence intervals (CIs) of smoking, exposure to secondhand smoke, and smoking restrictions among adult residents, by gender, age, and smoking status, Tijuana, Mexico, 2003–2004

	Exposure to secondhand smoke						Smoking restrictions					
	Current smokers		Home		Workplace ^a		Total ^b		Smoke-free home		Smoke-free workplace ^a	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
Males	29.7	23.0–36.4	10.0	5.4–14.5	39.0	30.4–47.5	60.3	53.1–67.6	63.6	56.5–70.8	43.0	34.4–51.6
Females	16.1	11.1–21.0	14.4	9.6–19.2	20.8	12.7–28.8	47.4	40.5–54.3	68.0	61.5–74.4	46.6	36.7–56.5
	$P = 0.001$		$P = 0.164$		$P = 0.002$		$P = 0.010$		$P = 0.359$		$P = 0.546$	
18–29 years	14.8	8.6–21.0	13.3	7.5–19.0	35.0	25.8–44.2	65.2	57.1–73.4	62.9	54.6–71.1	45.9	35.1–56.7
30–49 years	30.1	23.2–36.9	12.3	7.5–17.1	26.2	19.0–33.4	52.0	44.6–59.3	68.3	61.4–75.1	44.3	35.5–53.1
≥ 50 years	25.4	15.9–34.8	9.21	3.0–15.4	11.1	1.70–20.5	28.9	18.9–38.9	67.0	56.7–77.2	38.5	20.9–56.2
	$P = 0.004$		$P = 0.666$		$P = 0.009$		$P < 0.001$		$P = 0.554$		$P = 0.795$	
Smokers	NA ^c	NA	20.3	11.8–28.8	39.1	26.2–52.0	67.5	57.7–77.3	47.4	36.9–58.0	33.1	21.0–45.1
Nonsmokers	NA	NA	9.8	6.4–13.2	29.4	22.3–36.4	49.9	44.0–55.7	71.3	66.0–76.5	48.2	40.6–55.8
			$P = 0.009$		$P = 0.131$		$P = 0.003$		$P < 0.001$		$P = 0.041$	
All	22.9	18.7–27.1	12.2	8.9–15.5	31.8	25.6–38.0	53.9	48.8–58.9	65.8	61.0–70.6	44.4	37.9–50.9

^a Only for Tijuana residents who work in the city of Tijuana.

^b Including regular exposure to secondhand smoke inside the home, the workplace, a car, and/or any other indoor venues.

^c NA = not applicable.

TABLE 2. Population prevalence estimates (%) and 95% confidence intervals (CIs) of support for legislation prohibiting smoking in public places among adult residents, by gender, age, and smoking status, Tijuana, Mexico, 2003–2004^a

	Workplaces		Restaurants		Public transportation		Schools		Health centers	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
Males	81.9	76.0–87.9	77.4	70.9–83.9	88.6	83.7–93.5	91.0	86.5–95.6	93.7	89.9–97.5
Females	88.2	83.7–92.7	79.7	74.1–85.3	91.8	87.9–95.7	95.5	92.6–98.4	96.9	94.4–99.4
	<i>P</i> = 0.080		<i>P</i> = 0.567		<i>P</i> = 0.283		<i>P</i> = 0.096		<i>P</i> = 0.139	
18–29 years	82.3	75.7–89.0	70.5	62.6–78.4	87.1	81.3–92.9	89.8	84.5–95.1	93.0	88.6–97.5
30–49 years	84.2	78.7–89.7	82.3	76.6–88.0	91.2	86.9–95.5	94.2	90.7–97.7	95.9	92.8–98.9
≥ 50 years	94.5	89.1–99.8	90.1	83.5–96.8	95.8	90.9–100	100.0	—	100.0	—
	<i>P</i> = 0.039		<i>P</i> = 0.001		<i>P</i> = 0.107		<i>P</i> = 0.002		<i>P</i> = 0.013	
Smokers	70.5	60.7–80.3	60.8	50.4–71.3	82.7	74.4–91.0	87.7	80.1–95.2	92.0	85.9–98.2
Nonsmokers	89.3	85.6–93.1	83.7	79.3–88.1	92.4	89.2–95.6	94.9	92.3–97.6	96.3	94.0–98.6
	<i>P</i> < 0.001		<i>P</i> < 0.001		<i>P</i> = 0.009		<i>P</i> = 0.014		<i>P</i> = 0.167	
All	85.1	81.3–88.8	78.6	74.3–82.9	90.2	87.1–93.3	93.3	90.6–96.0	95.3	93.1–97.6

^a Weighted percentages of those who strongly support a law prohibiting smoking in the different public places listed.

DISCUSSION

The city of Tijuana is located in Baja California, a state that has enacted legislation banning smoking in a wide array of public places, including most workplaces. Results from this survey indicate that, despite existing laws restricting smoking in public places, passive smoking in workplaces is still common in Tijuana. At the time of this survey, almost one-fourth of Tijuana adult residents were current smokers, and about half of the nonsmokers reported passive smoke exposure. These Tijuana estimates are similar to the national rates in Mexico for smoking (21.5%) in 2000 and for exposure to secondhand smoke (52.6%) in 1998 (2, 3). These results suggest the need for strengthening tobacco control efforts.

Interestingly, smoking rates for females in Tijuana in 2003–2004 (16.1%) were higher than national estimates for Mexican females in 2000 (10.1%) (3). This may reflect an increase in smoking among women in Mexico between 2000 and 2003–2004. Alternatively, this difference may be related to the higher level of economic and human development of Tijuana residents compared to the rest of Mexico (6). Data from other countries with limited tobacco control programs and

similar cultures suggest a positive association between socioeconomic status and female smoking rates (7). In addition, higher smoking rates among Tijuana females may reflect the effects of the proximity of this border city to the United States. A 2005 systematic review of studies examining the association between acculturation to United States society and smoking patterns among Latinos in the United States indicates that as the level of acculturation increases, Latinas are more likely to smoke (8). Thus, it is possible that exposure to the United States culture through media, travel, and social interaction with United States citizens increases the smoking risk among women in Tijuana and other Mexican border regions. This influence may, however, be attenuated by the strong antitobacco culture in California, the state of the United States that is adjacent to Tijuana. There is a need for further epidemiological research on the socioeconomic and cultural determinants of female smoking as well as more prevention and cessation measures targeting women in the border regions of Mexico.

The majority of smokers begin smoking during adolescence or early adulthood (9). Our data show that current smoking in Tijuana is less preva-

lent among younger persons. These results may be explained by a decline in the relative number of individuals who have taken up smoking and/or by increasing rates of smoking cessation among younger cohorts of individuals in Tijuana. Our survey seems to support the first hypothesis, by showing that the estimated percentage of “never smokers” (i.e., subjects who have never smoked more than 100 cigarettes during their lifetime) was 77.6% among adults 18–29 years old, 56.4% among those aged 30–49, and 37.8% among those 50 or older (data not shown). In contrast, our data show that younger individuals are at higher risk for passive smoking in virtually all settings examined except the home. These findings suggest that progress in smoking prevention has been made, but they also indicate the need for interventions to reduce health risks associated with exposure to secondhand smoke among young adults in Tijuana and possibly elsewhere in Mexico.

Evidence from other countries indicates that smoking restrictions are effective measures to protect nonsmokers from secondhand smoke (10, 11), and are associated with reduced smoking rates (12, 13). Hence, the prevalence of formal and informal smoke-free policies represents an im-

portant outcome of tobacco control efforts. In 2003–2004, almost two-thirds of Tijuana households were smoke-free, whereas fewer than half of Tijuana adults had a nonsmoking policy in their workplace. Household restrictions on smoking in Tijuana were relatively widespread and comparable to the rate of smoke-free homes in the United States, where tobacco control measures were initiated earlier than in Mexico. However, smoke-free homes were less prevalent in Tijuana than among Latinos in California, which has one of the strongest tobacco control programs in the world. It is estimated that over three-quarters of Latinos in California, most of whom are of Mexican descent (14), live in a home with a smoke-free rule. Likewise, rates of smoke-free workplaces in Tijuana contrast with the 67% prevalence of smoke-free workplaces in the United States (15) and the 93.7% prevalence of workplace bans among Latinos in California (16). The low level of workplace smoking bans reported in Tijuana reflects the lack of enforcement of existing smoke-free regulations in that city. In addition, the difference in the prevalence of home vs. workplace policies, in conjunction with lower rates of passive smoking in the home compared to the workplace, suggests the effective-

ness of smoking restrictions in reducing exposure to secondhand smoke as well as the potential impact of stronger enforcement of existing workplace legislation.

Promoting cultural changes in attitudes toward smoking and secondhand smoke are an important objective of tobacco control programs. In general, our data show that most Tijuana residents hold negative attitudes toward secondhand smoke and have a preference for smoke-free workplaces. In addition, the majority of the respondents, including most smokers, support laws prohibiting smoking in a wide array of public places, including workplaces, restaurants, public transportation, schools, and health centers. Future studies should investigate actual levels of law enforcement as well as attitudes regarding stricter enforcement of the existing legislation that prohibits smoking in workplaces and other public places in Tijuana.

Limitations of this study include a limited response rate and data based solely on self-report from one individual per household. Despite the rate of nonresponses, the low proportion of actual refusals decreases the likelihood of self-selection bias due to differences in smoking status, exposure to secondhand smoke, or household

restrictions on smoking among respondents vs. nonrespondents. However, the lack of data regarding the characteristics of nonrespondents prevents us from further examining this issue. Previous research supports the validity of self-reported measures of tobacco use (17), passive smoking (18), and smoking restrictions in the home (19). However, the use of objective measures and collection of information on smoking restrictions from several household members should be considered for future studies.

In summary, this study provides current population estimates of smoking, exposure to secondhand smoke, smoking restrictions, and attitudes regarding passive smoking among residents of Tijuana. These estimates may inform future policies aimed at reducing the health risks associated with tobacco use and exposure to tobacco smoke in Tijuana and elsewhere in Mexico.

Acknowledgements. This research was supported by grant #11RT-0148 awarded to Dr. Melbourne F. Hovell by the Tobacco-Related Diseases Research Program, University of California. The authors would like to thank two anonymous reviewers for their helpful comments on an earlier version of this paper.

REFERENCES

- Grupo Interinstitucional sobre Estudios en Tabaco. Información relevante para el control del tabaquismo en México, 2003. Available from: <http://www.insp.mx/tabaco/tabaco.pdf> [Web site]. Accessed 16 February 2005.
- Tapia-Conyer R, Kuri-Morales P, Hoy-Gutiérrez MJ. Panorama epidemiológico del tabaquismo en México. *Salud Publica Mex*. 2001;43(5):478–84.
- Olaiz G, Rojas R, Barquera S, Shamah T, Aguilar C, Cravioto P, et al, eds. Encuesta Nacional de Salud 2000. Tomo 2. La salud de los adultos. Cuernavaca: Instituto Nacional de Salud Pública; 2003. Available from: http://xipe.insp.mx/ensa/ensa_tomo2.pdf [Web site]. Accessed 1 December 2004.
- Moreno García D, Cantú Martínez PC. Perspectiva sobre el tabaquismo en México. *Rev Salud Publica Nutr*. 2002;3(2). Available from: <http://www.uanl.mx/publicaciones/respyn/iii/2/index.html>. Accessed 23 February 2005.
- México, Instituto Nacional de Estadística, Geografía e Informática. Sistema Municipal de Bases de Datos, 2004. Available from: http://www.inegi.gob.mx/prod_serv/contenidos/espanol/simbad/default.asp?c=73. [Web site]. Accessed 12 September 2005.
- México, Consejo Nacional de Población. México en cifras. Índices de desarrollo humano, 2000. Anexo estadístico, cuadros. Available from: <http://www.conapo.gob.mx/00cifras/6e.htm> [Web page]. Accessed 18 August 2005.
- Borrell C, Domínguez-Berjón F, Pasarín MI, Ferrando J, Rohlf s I, Nebot M. Social inequalities in health related behaviours in Barcelona. *J Epidemiol Community Health*. 2000;54(1): 24–30.
- Bethel JW, Schenker MB. Acculturation and smoking patterns among Hispanics. A review. *Am J Prev Med*. 2005;29(2):143–8.
- United States, Department of Health and Human Services. Preventing tobacco use among young people. A report of the Surgeon General, 1994. Atlanta: U.S. Public Health Service, Centers for Disease Control and Prevention, Office on Smoking and Health; 1994. (U.S. Government Printing Office Publication No. S/N 017-001-00491-0).
- Brownson RC, Eriksen MP, Davis RM, Warner KE. Environmental tobacco smoke: health effects and policies to reduce exposure. *Annu Rev Public Health*. 1997;18:163–85.
- Biener L, Cullen D, Di ZX, Hammond SK. Household smoking restrictions and adolescents' exposure to environmental tobacco smoke. *Prev Med*. 1997;26(3):358–63.

12. Chapman S, Borland R, Scollo M, Brownson RC, Dominello A, Woodward S. The impact of smoke-free workplaces on declining cigarette consumption in Australia and the United States. *Am J Public Health*. 1999;89(7):1018–23.
13. Fichtenberg CM, Glantz SA. Effect of smoke-free workplaces on smoking behaviour: systematic review. *Br Med J*. 2002;325(7357):188.
14. United States Census Bureau. American Fact Finder, Census 2000 summary file 1 (SF 1) 100-percent data, quick tables, matrix pct11. Available from <http://www.census.gov/Press-Release/www/2001/sumfile1.html> [Web site]. Accessed 12 November 2005.
15. Levy DT, Romano E, Mumford EA. Recent trends in home and work smoking bans. *Tob Control*. 2004;13:258–63.
16. University of California, San Diego, Cancer Prevention and Control Program. Tobacco control successes in California: a focus on young people. Results from the California Tobacco Surveys, 1990–2002. Available from: <http://repositories.cdlib.org/tc/surveys/CTC1990-2002> [Web site]. Accessed 2 March 2005. (Tobacco Control Surveys and Program Evaluations Paper CTC1990-2002).
17. Patrick DL, Cheadle A, Thompson DC, Diehr P, Koepsell T, Kinne S. The validity of self-reported smoking: a review and meta-analysis. *Am J Public Health*. 1994;84(7):1086–93.
18. Hovell MF, Zakarian JM, Wahlgren DR, Matt GE, Emmons KM. Reported measures of environmental tobacco smoke exposure: trials and tribulations. *Tob Control*. 2000;9(Suppl 3):III22–8.
19. Martínez-Donate AP, Hovell MF, Meltzer SB, Meltzer EO, Hofstetter CR, Wahlgren DR, et al. The association between residential tobacco smoking bans, smoke exposure and pulmonary function: a survey of Latino children with asthma. *Pediatr Asthma Allergy Immunol*. 2003;16(4):305–17.

Manuscript received 31 March 2005. Revised version accepted for publication 30 August 2005.

RESUMEN

Tabaquismo, exposición a humo ajeno y medidas restrictivas contra el tabaquismo en Tijuana, México

Objetivo. Calcular la prevalencia del consumo de tabaco, de la exposición a humo ajeno o ambiental y de la existencia de medidas restrictivas contra el tabaquismo en el hogar y en el lugar de trabajo entre residentes de Tijuana, una de las ciudades más grandes de México.

Métodos. Esta encuesta domiciliaria transversal se llevó a cabo en Tijuana, Baja California, México, durante 2003 y 2004. Una muestra poblacional de 400 adultos residentes de Tijuana respondió a una encuesta sobre el tabaquismo y 397 de las encuestas se sometieron a análisis.

Resultados. Cerca de 22,9% (intervalo de confianza de 95% [IC95%]: 18,7% a 27,1%) de los adultos residentes de Tijuana declararon que fumaban en el momento de la encuesta y 53,9% (IC95%: 48,8% a 58,9%) declararon estar expuestos crónicamente a humo ajeno o ambiental. Alrededor de 44,4% (IC95%: 37,9% a 50,9%) de los adultos en Tijuana dijeron que había reglamentos contra el tabaquismo en su lugar de trabajo, mientras que en 65,8% (IC95%: 61,0% a 70,6%) de los hogares de Tijuana no se fumaba dentro del hogar.

Conclusiones. Los resultados subrayan la necesidad de incrementar las medidas para el control del tabaquismo, especialmente las orientadas a hacer cumplir los reglamentos existentes contra la contaminación ambiental por humo de tabaco, todo a fin de extender la protección contra dicha contaminación más allá de los entornos privados a los públicos y frenar la epidemia de tabaquismo en Tijuana y en otras partes de México.

Palabras clave

Tabaquismo, contaminación por humo de tabaco, exposición a riesgos ambientales, salud de la familia, política de salud, México.