Coverage of Tobacco Dependence Treatments for Pregnant Smokers in Health Maintenance Organizations

Kate E. Pickett, PhD, Barbara Abrams, DrPH, Helen Halpin Schauffler, PhD, Janet Savage, MS, Peggy Brandt, MPH, Amy Kalkbrenner, MPH, and Susan A. Chapman, PhD

Approximately 13% of pregnant women in the United States smoke,[1] with serious health consequences for themselves and their infants.[2–7] However, many women make important changes in health behavior when pregnant and approximately 30% of women smokers quit spontaneously early in their pregnancies.[8] In June 2000, the US surgeon general released clinical practice guidelines for smoking cessation programs and recommended that "because of the serious risks of smoking to the pregnant smoker and fetus, whenever possible pregnant smokers should be offered extended or augmented psychosocial interventions that exceed minimal advice to quit."[9] Minimal contact interventions also have been shown to have some benefit for pregnant smokers and their offspring.[10–14]

We surveyed coverage of prenatal tobacco dependence treatments in health maintenance organizations (HMOs) in California to assess the availability, accessibility, use, and effectiveness of services offered to pregnant smokers. The survey addressed the following services: individual, group, and telephone counseling and self-help kits. The eligible sample included 39 full-service HMOs, all of which responded to the survey. For each HMO, we identified the most knowledgeable staff member to answer the survey.

Only 3 HMOs (8%) covered all 4 services. Thirty-six HMOs (92%) covered at least 1 treatment, whereas 3 (8%) covered no tobacco dependence treatments for pregnant women. Seventeen HMOs (44%) reported covering at least 1 additional smoking cessation service, such as nicotine replacement therapy, for pregnant women beyond those about which we asked. Coverage ranged from a low of 44% for self-help kits and individual counseling to a high of 56% for telephone counseling (Figure 1).

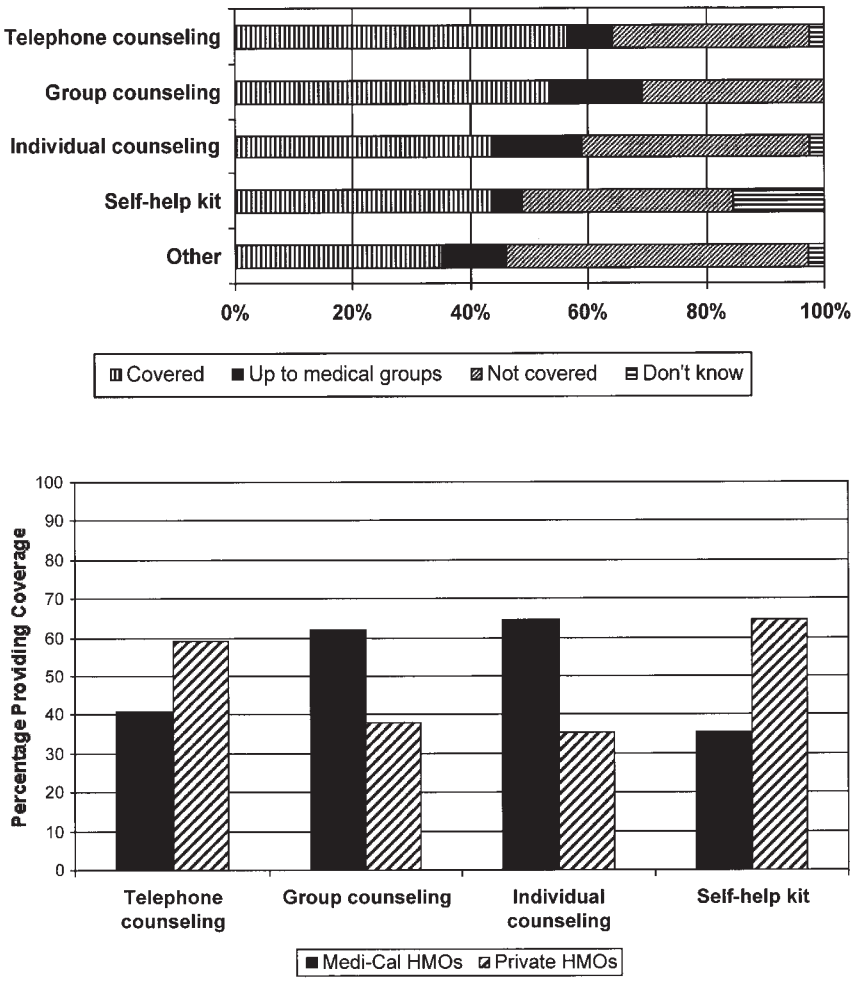

FIGURE 1—Coverage of prenatal smoking cessation services among California health maintenance organizations (N = 39).

In many cases, HMOs delegated decisions about provision of treatments to the medical groups with which they contract. Among HMOs covering each service, prior authorization requirements for coverage were low. Specialty training requirements were highest for group counseling (57%) and lowest for staff providing self-help kits (18%). Thirteen HMOs (33%) reported having established memoranda of understanding or contractual relationships with other organizations to provide tobacco dependence treatment services to their members.

Of the HMOs covering services, only 67% monitored utilization (e.g., keeping lists of participants). Only 28% of these HMOs monitored quit rates among pregnant smokers. Thirty-two of the 39 HMOs (82%) reported that their providers screen all pregnant women for smoking, whereas 7 HMOs (18%) did not know whether screening took place.

Medi-Cal managed care plans were more likely to provide coverage for face-to-face services (individual and group counseling)

compared with commercial HMOs (Figure 1). In California, members of Medi-Cal managed care plans may have better access to the most effective, clinically intensive tobacco dependence treatment services, because providers of Medi-Cal managed care are mandated to identify and intervene on risk conditions identified during pregnancy.

Our findings suggest that in 1997, most California HMOs were not covering the extended or augmented psychosocial interventions that have been recommended for all pregnant smokers by the US Public Health Service.[9,15] Although managed care offers the potential for increasing the availability and accessibility of such services for plan members, this survey suggests that that potential is not being realized. In addition, many California HMOs are unable to judge the use or effectiveness of these services and can neither track the costs and benefits of existing programs nor determine the need for additional services. ■

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Geographic Variations in Asthma Mortality in Erie and Niagara Counties, Western New York, 1991–1996

| John Patrick Almeida, MD, and Jamson S. Lwebuga-Mukasa, MD, PhD

Asthma is one of the most common chronic respiratory diseases in the United States.[1] More than 5000 persons died from asthma in 1995, and the trends in asthma mortality have been increasing in the United States over the past 2 decades.[2]

This investigation focused on Erie and Niagara counties in western New York. These counties have a combined population of 1.2 million and, together, are classified as a metropolitan area. Asthma mortality data for 1991 to 1996 were obtained from the New York State Bureau of Biometrics. Asthma mortality was determined from death certificate information. SPSS (SPSS, Inc, Chicago, Ill) was used in conducting statistical analyses. All population rates were calculated per 100 000 persons.

Between 1991 and 1996, 158 asthma deaths were recorded in western New York. Eighty percent of these deaths occurred in Erie and Niagara counties. Average age-adjusted annual mortality rates were 1.61 for Erie County and 1.53 for Niagara County. In comparison, New York State had an average annual rate of 2.48 asthma deaths per 100 000 population. The majority of deaths (58%) during 1991 to 1996 occurred among individuals 65 years or older.

The highest mortality rate for the period was 2.49 (95% confidence interval [CI]= 1.60, 3.38) in 1995; this rate decreased to 1.90 (95% CI=1.12, 2.68) in 1996. Women had higher asthma mortality rates than men in Erie and Niagara counties (see Table 1).

The city of Niagara Falls had an average annual asthma mortality rate of 2.96, almost 3 times that of the remainder of Niagara County (see Table 2). The city of Lockport

TABLE 1—Deaths From Asthma in Erie and Niagara Counties, by Age Group and Sex, 1991–1996

	No. of Deaths	Average Annual Mortality Rate (per 100 000)	95% Confidence Interval
Erie and Niagara counties, all ages	126	1.76	1.45, 2.07
Age group, y			
0–34	15	0.42	0.21, 0.63
35–64	38	1.52	1.04, 2.00
≥65	73	6.64	5.12, 8.16
Sex			
Male	43	1.26	0.88, 1.64
Female	83	2.22	1.74, 2.70

TABLE 2—Deaths From Asthma, by Area: Western New York, 1991–1996

Area	No. of Deaths	Average Annual Mortality Rate (per 100 00)	95% Confidence Interval
Erie County	42	0.72	0.5, 0.94
Niagara County	8	0.60	0.18, 1.02
Buffalo	60	3.05	2.28, 3.82
Niagara Falls	11	2.96	1.21, 4.71
Lockport	2	1.36	0, 3.24

had an annual mortality rate of 3.05, more than that of the rest of Erie County (1.09 per 100 000). Two zip codes in Buffalo's east side (14211 and 14215) accounted for 25% of the mortality from 1991 to 1996.

As a region, western New York had mortality rates lower than those in most of New York State. However, regional grouping masks areas of high risk for mortality due to asthma. Mortality was greatest in the 2 most populous counties (i.e., Erie and Niagara) and rare in rural counties of western New York. In Erie and Niagara counties, mortality was greater in urban areas than in suburban or rural areas.

Buffalo, the most urbanized area in the 2 counties, had the highest annual mortality rate, comparable to that of New York City. Buffalo accounts for 20% of western New York's population but was responsible for 50% of asthma mortality in the region during the study period. The 2 zip codes with the highest asthma mortality rates in Buffalo comprise areas with large African American populations.[3] Many US cities have large minority populations living in poverty, among whom the prevalence and severity of asthma are high.[4–6]

Given the reversibility of asthma and the availability of effective treatment strategies, deaths due to asthma are avoidable. The present report provides a basis for targeting interventions and evaluating their effectiveness. ■

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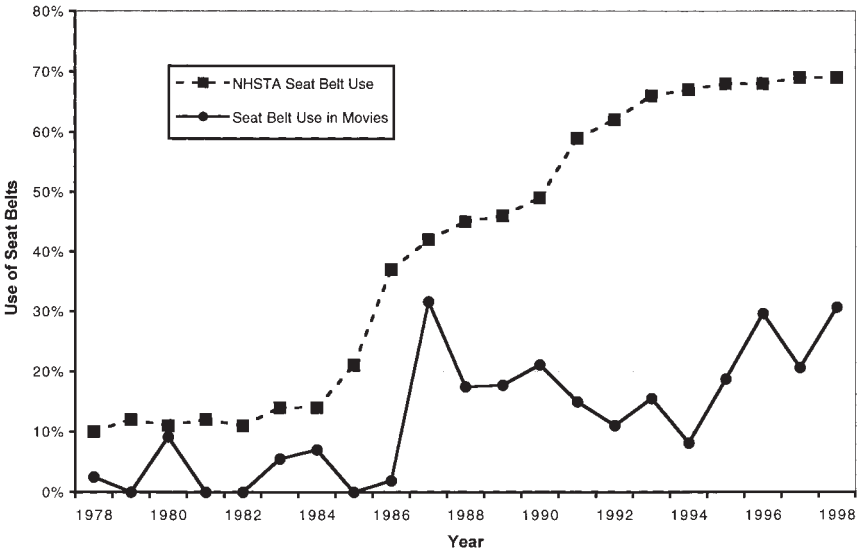
Seat Belt Use in Top-Grossing Movies vs Actual US Rates, 1978–1998

| Heather A. Jacobsen, MPH, Matthew W. Kreuter, PhD, MPH, Douglas Luke, PhD, and Charlene A. Caburnay, MPH

The prevalence of risky health behaviors, such as tobacco and alcohol use, is consistently higher in movies than in real life.[1–6] We compared the prevalence of a *protective* health behavior—seat belt use—in movies and in reality.

Two hundred eleven movies (approximately 10 per year) were randomly selected from top-grossing releases (N=917) from 1978 through 1998. Movies that took place outside the United States or in noncontemporary time relative to the release date, movies that contained no humans, movies that had X or NC-17 ratings (on September 27, 1990, the Motion Picture Association of America changed the name of the X category to NC-17: no one 17 and under admitted), and cartoons were excluded from the sampling frame. Each movie was coded for seat belt use, occupant gender, movie rating, and



Note. NHTSA = National Highway Transportation and Safety Administration.

FIGURE 1—Actual and movie rates of seat belt use, by year: United States,1978–1998.

movie genre. Front seat occupants were classified as consistent users if they wore a seat belt every time they appeared in a moving vehicle (interrater agreement=93%). Inconsistent use and nonuse also were recorded, with inconsistent users evenly assigned at random to either consistent or nonuser status for analyses.

The rate of seat belt use in movies did not exceed 10% until 1987, peaked that year at 32%, and has fluctuated between 10% and 30% since then. National Highway Traffic Safety Administration (NHTSA) data from the same period indicate low rates of seat belt use in the United States before 1984, but the rate increased 3-fold in the mid-1980s following passage of seat belt laws in 31 states.[7] As enforcement and public education were strengthened, rates increased further (see Figure 1).[7]

In general, increases in NHTSA rates preceded similar, but smaller, increases in movie rates. A cross-correlation time-series analysis suggested that NHTSA rates are a leading, not lagging, indicator of movie rates. NHTSA rates for a given year were most highly correlated with movie rates from 1 year later (r=0.404, P<.10).

Seat belt use was higher in family movies than in other movies (23% vs 11%, P=.01), but otherwise neither movie genre nor rating was significantly associated with seat belt use. In movies that showed both men and women as front seat occupants (n=49), women were more likely than men to wear a seat belt (18% vs 10%; t test=−2.676, P<.01).

Clear differences exist between actual and movie rates of seat belt use. Less clear is what influence, if any, movies have on viewers' attitudes and behaviors. Others have suggested that risky health behaviors shown in movies influence audience members directly, through modeling.[1–6] In the case of protective health behaviors, we are skeptical of a direct effects explanation. Rather, we think that the cumulative effect of seeing little or no seat belt use in movies may be to distort viewers' perception of social norms. Although some driving scenes in movies are filmed in unmoving vehicles on studio sets, we know of no reason that this or other conventions of filmmaking would require nonuse of seat belts. Nor do we know of any interests served by intentionally minimizing seat belt use in movies. This lack of seat belt use calls for a response from the motion picture industry. Every time a character is shown in a moving vehicle without wearing a seat belt, an opportunity—however subtle—is missed to depict seat belt use. ■

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Contributors

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Local Lead Data Are Needed for Local Decision Making

Devon Corcia Payne-Sturges, MEngr, MPH, and Jeannette Gabrielle Breugelmans, MS, MPH

In late 1998, the Maryland Department of the Environment, the agency responsible for

maintaining the statewide childhood blood lead surveillance system, published a report[1] indicating that (1) the city of Baltimore had the highest percentage of children with elevated blood lead levels and lead poisoning in Maryland and (2) prevalence rates of elevated blood lead levels and lead poisoning were, respectively, 7 and 16.5 times higher in Baltimore than in the United States as a whole (Table 1). Given these alarming statistics, the Childhood Lead Poisoning Prevention Program of the Baltimore City Health Department conducted a close examination of the Department of the Environment's data analyses.

During our review, we discovered major shortcomings in the structure and maintenance of the state blood lead database and in the department's data quality and analyses. These problems included lack of unique identifiers and a flawed approach to handling incomplete address information. Therefore, the ability to accurately track and interpret lead poisoning trends and screening rates over time and to relate blood lead surveillance data to the Department of the Environment's other lead poisoning databases was severely limited.

We shared our findings regarding Maryland's blood lead surveillance system with other local environmental health directors who had similar concerns. Subsequently, we drafted recommendations for improving the state's childhood blood lead surveillance system and presented them to the Department of the Environment and the Maryland Department of Health and Mental Hygiene. Our recommendations included the following:

- Development and enforcement of the use of standardized laboratory report forms to be submitted to the Department of the Environment;
- Implementation of a relational database and improvement of quality control measures at the Department of the Environment;
- Creation of an electronic link for blood lead data transmission between the Department of the Environment, the Department of Health and Mental Hygiene, and local health departments;
- Improvement of the Department of the Environment's annual report through inclusion of (1) elevated blood lead level and blood lead poisoning incidence and prevalence rates, (2) demographic data, and (3) state and local blood lead concentration distributions.

We learned 2 important lessons from our experience. First, the sharing of concerns about childhood lead poisoning surveillance among local environmental health directors and the joint presentation of recommendations to the state confirmed local public health as a critical link in environmental health. Second, our evaluation of lead surveillance in Maryland signaled a need to examine other lead programs.

Lead exposure surveillance is often touted as a success story at the national level and as a model for the development of tracking mechanisms for other environmentally related surveillance efforts. However, current childhood blood lead surveillance practices at the state and local levels may not be as effective in regard to providing accurate, meaningful information to those who need it. Because there are no mandated federal guidelines for state blood lead surveillance systems and data collection methods, and because blood lead reporting levels vary among states, meaningful data analysis is limited.

Surveillance is increasingly recognized as a crucial component of successful environmental health practice. As a result, this may be an opportune time not only to consider new areas for environmental health tracking but also to reevaluate and improve existing surveillance programs, including those focusing on blood lead poisoning. ■

TABLE 1—Childhood Blood Lead Surveillance in Maryland: Summary Results From the Maryland Department of the Environment 1997 Annual Report

Blood Lead Level, μg/dL	NHANES III, Phase 2 (1991–1994)	Baltimore City, %	Other Maryland Cities,[a] %	Maryland Counties, %
≥10	4.4	31.6	7.5	3.9
≥15	1.3	14.6	2.9	1.3
≥20	0.4	6.6	1.4	0.6

Note. NHANES III = Third National Health and Nutrition Examination Survey. Percentages refer to elevated blood lead levels (venous only) in children aged 1–6 years.
[a]Including Annapolis, Frederick, Hagerstown, and Salisbury.

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Reference

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