Texans and Tobacco

Report to the 80th Texas Legislature

January 2007

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The Community Mental Health and Substance Abuse Services Division staff of the Texas Department of State Health Services, would like to acknowledge the assistance of staff from the State Comptroller of Public Accounts and the Disease Prevention and Intervention Section of the Texas Department of State Health Services in creating this report.

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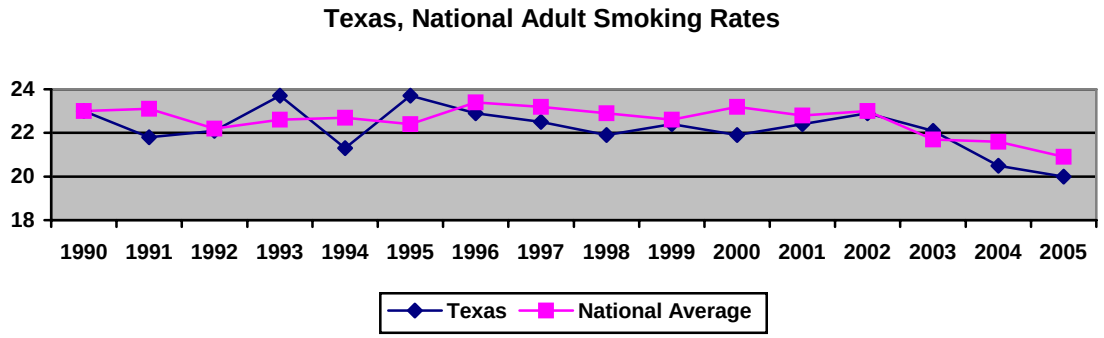
Tobacco Use

Cigarette smoking remains the leading preventable cause of death in the United States, accounting for approximately 1 of every 5 deaths (440,000 people) each year.[1,2]

Adult Tobacco Use



Texas adults consistently maintained a smoking rate of approximately 22% for the past decade. However, efforts to increase cessation have resulted in a 20% smoking rate in 2005 for Texas adults according to the Behavioral Risk Factor Surveillance System (BRFSS) data from the Centers for Disease Control and Prevention (CDC) and Texas Department of State Health Services (DSHS).

According to the 2005 BRFSS survey, 20% of Texas adults, or 3,271,873, smoked, compared to a national average of 20.9%. The 2005 number is a decrease of approximately 81,797 smokers from 2004, when the rate was 20.5%. However, since the 1990 BRFSS study, Texas smoking rates have ranged from a high of 23.7% (1993 and 1995) to the latest survey low of 20% (2005) while national rates have ranged from 23.2% (1997 and 2000) to a low of 20.9 (2005).

[1] Centers for Disease Control and Prevention, Annual smoking-attributable mortality, years of potential life lost, and economic costs – United States 1995-1999, *Mortality and Morbidity Weekly Report* 2002; 51(14): 300-303.
[2] Centers for Disease Control and Prevention, National Center for Health Statistics; Health, United States 2003 With Chartbook on Trends in the Health of Americans. Hyattsville, MD: U.S. Department of Health and Human Services, CDC, 2003:141.

National statistics from the CDC Office on Smoking and Health show that:

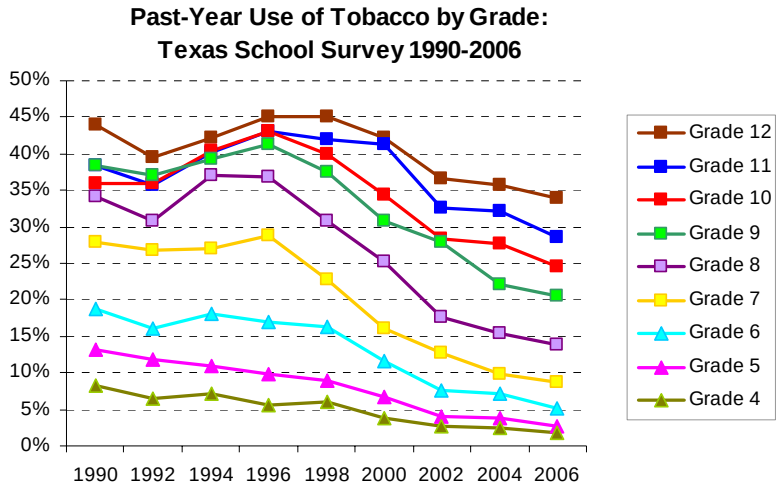
- Kentucky (28.7%), Indiana (27.3 percent), and Tennessee (26.8%) had the highest prevalence of current smokers. Smoking prevalence was lowest in Utah (11.5%), California (15.2%), and Connecticut (16.5%).)[3] The rate for Texas was 20%.
- In 2005, an estimated 20.9% (45.1 million) of U.S. adults were current cigarette smokers; of these, 80.8% (36.5 million) smoked every day, and 19.2% (8.7 million) smoked some days.
- Prevalence of current cigarette smoking varied substantially across population subgroups. Current smoking was higher among men (23.9%) than women (18.1%). Current smoking among Texas men (23.3%) was higher than Texas women (16.8%).
- Among racial/ethnic groups, American Indians and Alaska Natives had the highest prevalence (32.0%), followed by non-Hispanic whites (21.9%), and non-Hispanic blacks (21.5%). Asians (13.3%) and Hispanics (16.2%) had the lowest rates.
- By education level, smoking prevalence was highest among adults who had earned a General Educational Development (GED) certificate (43.2%) and those with 9-11 years of education (32.6%); prevalence generally decreased with increased education. Adults aged 18-24 years (24.4%) and 25-44 years (24.1%) had the highest prevalence.
- Prevalence of current smoking was higher among adults living below the poverty level (29.9%) than among those at or above the poverty level (20.6%).

Youth Tobacco Use

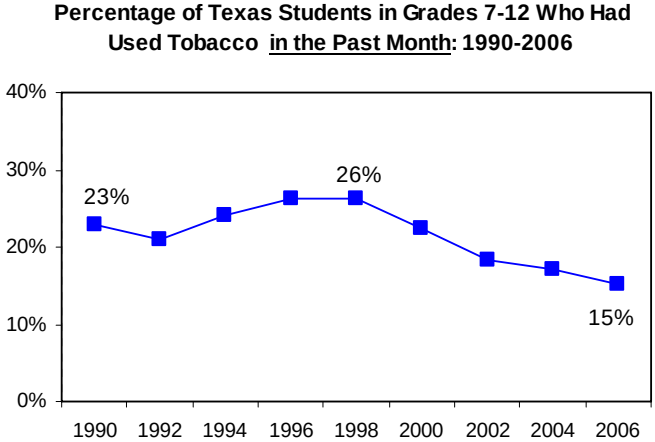
Public health activities continue to have a positive impact on rates of underage tobacco use in Texas. Overall tobacco use by Texas youth has decreased extensively since 1990.

[3] Centers for Disease Control and Prevention, Tobacco Use Among Adults – United States, 2005. *Morbidity and Mortality Weekly Report* 2006; 55(42): 1145 - 1148.

The Texas School Survey of Substance Use Among Youth, a statewide survey of drug and alcohol use among students in secondary and elementary schools, has documented a significant decrease in tobacco use among students since 1990. Both the Texas School Survey and the statewide Youth Tobacco Survey (YTS) track trends in tobacco use that substantiate the positive effects of comprehensive approaches to tobacco prevention and control activities which include utilizing skills and resources of public health and substance abuse prevention programs located in government, non-profit and grass-roots community-based organizations throughout the state.



The Texas School Survey reports that about 35% of all secondary students in 2006 reported having used some type of tobacco product (cigarettes or smokeless tobacco) during their lifetime, significantly down from 39% in 2004 and from 56 % in 1990. As indicated above, the number of students who report using tobacco products climbs with each grade. Forty-five percent of students in grades 7-12 reported initiating tobacco use before age 13, with tobacco use increasing between middle school and high school. In 2006, 35.4% of all students reported ever using tobacco, with seniors (49.9%) reporting nearly twice the lifetime use of 8th graders (27.4%) and three times the lifetime use of 7th graders (18.7%).



The Texas School Survey also shows that 15.2% of all secondary students reported use of tobacco in the month preceding the 2006 school survey, down considerably from the 26%

high in 1998. Younger students in grades 7-9 had their lowest rate of past-month tobacco use since 1990. In 2006, 26.2% of seniors admitted current use of tobacco products, which is three times the current past month use of 8th graders (9.1%) and four times the past month use of 7th graders (6.1%). Approximately 235,224 Texas high school students are currently using tobacco products.

Youth Tobacco Survey findings from surveys conducted among Beaumont/Port Arthur middle and high school students and statewide schools demonstrate increased effectiveness of a comprehensive approach to tobacco prevention and control. When the Texas Tobacco Prevention Initiative first began implementing a comprehensive program in East Texas using Texas Tobacco Settlement funding, the Beaumont/Port Arthur area (Jefferson County) was among the counties with the highest observed tobacco use rates in Texas and students there having higher tobacco use rates.

Table 1: Comparison of Beaumont/Port Arthur middle school rates of current smoking 2003, 2004, 2006

	Beaumont/Port Arthur			Houston and surrounding area			Comparison area		
	Spring 2003	Spring 2004	Spring 2006	Spring 2003	Spring 2004	Spring 2006	Spring 2003	Spring 2004	Spring 2006
Current smoking (%)	18.7	12.9	10.8	12.4	13.6	12.8	13.2	14.2	14.1
Current any tobacco use (%)	21.3	17.1	14.3	14.8	17.5	17.0	15.9	18.2	17.6

Among middle schools students (see Table 1), prevalence of current smoking in Beaumont/Port Arthur decreased from 18.7% in 2003 to 10.8% in 2006. Prevalence of current use of any tobacco product decreased from 21.3% to 14.3% during the same period. In Houston and the surrounding area (Harris and Fort Bend County), slight increases occurred in current smoking between spring 2003 and spring 2006 from 12.4% to 12.8% and for current use of any tobacco product, from 14.8% to 17.0%. Similar increases were observed statewide.

Table 2: Comparison of Beaumont/Port Arthur high school rates of smoking 2003, 2004, 2006

	Beaumont/Port Arthur			Houston and surrounding area			Comparison area		
	Spring 2003	Spring 2004	Spring 2006	Spring 2003	Spring 2004	Spring 2006	Spring 2003	Spring 2004	Spring 2006
Current smoking (%)	21.7	20.0	20.6	19.8	19.6	19.3	18.7	26.2	19.3
Current any tobacco use	22.1	25.1	26.2	23.6	23.0	24.2	24.1	32.4	23.3

(%)									

Among high school students, similar trends have been observed when students in Beaumont/Port Arthur are compared to students in Houston and the surrounding area as well as when compared to students statewide (see Table 2).

Table 3: Comparison of smoking rates, Beaumont/Port Arthur & statewide, 2006, middle and high school students

	Beaumont/Port Arthur			Statewide sample		
	Middle School	High School	Total	Middle School	High School	Total
Current smoking (%)	10.8	20.6	16.3	11.1	22.7	17.6
Current any tobacco use (%)	14.3	26.2	21.0	15.7	28.6	23.0

When Beaumont/Port Arthur students are compared to students surveyed during the statewide surveys (see Table 3), results show that both current cigarette smoking and current any tobacco use rates among both middle and high school students were lower than those among their counterparts statewide.

Tobacco Retail Sales to Minors

Sale of Cigarettes and Tobacco to Minors
S.B. No. 76, Chapter CXXXIX

An Act to prevent the sale of cigarettes and tobacco to persons under the age of sixteen years, and to prescribe a penalty for violating the same.

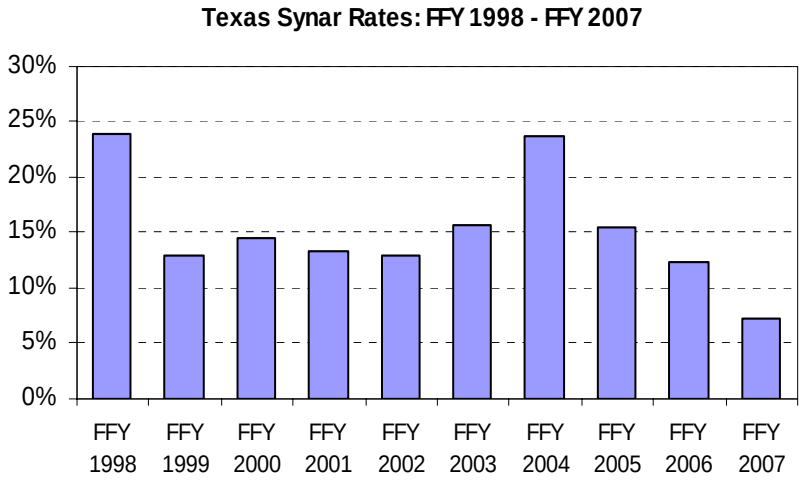
Be it enacted by the Legislature of the State of Texas:
Section 1. That any person who shall sell, give or barter, or cause to be sold, given or bartered, to any person under the age of sixteen years, or knowingly sell to any other person for delivering to such minor, without the written consent of the parent or guardian of such minor any cigarette or tobacco in any of its forms, shall be fined not less than ten nor more than one hundred dollars.

Approved May 23, 1899
General Laws of Texas, page 237
26th Texas Legislature

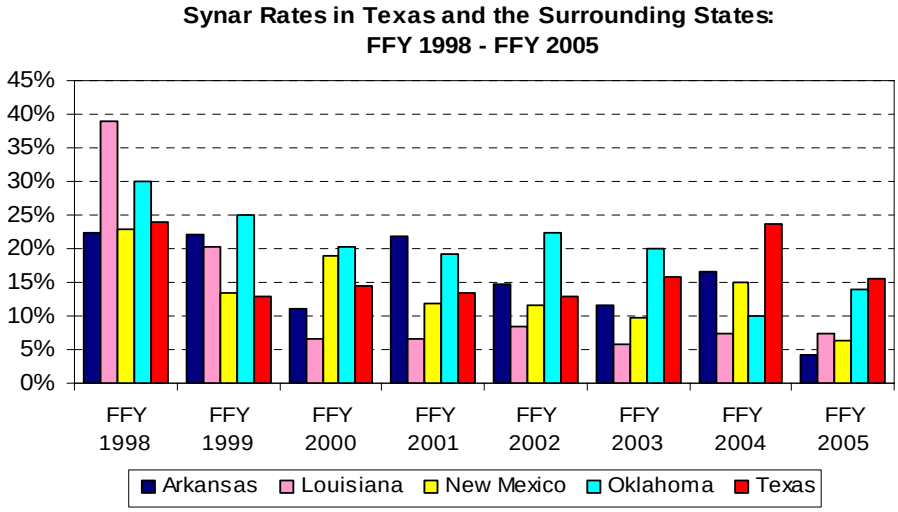
Federal Synar Inspections

Almost a century after the Texas Legislature passed their first bill regulating sale of tobacco to minors, the federal government became proactive in the battle against underage access to tobacco products. The federal legislation, called the Synar Amendment since it was championed by Oklahoma Congressman Mike Synar, requires states to not only have laws that outlaw tobacco sales to persons under the age of 18, but also conduct an annual random inspection of tobacco retailers. States that have a sales rate of more than 20% (meaning that one in five tobacco retailers inspected sold tobacco to a minor) face stiff sanctions including the potential loss of federal funds for substance abuse prevention and treatment.

In Texas, the Comptroller of Public Accounts (CPA), in partnership with local law enforcement agencies, is responsible for compliance with the Synar amendment. Through an interagency agreement, the Texas Department of State Health Services' Division of Mental Health and Substance Abuse Services handles the actual task of conducting the Synar Survey inspections and evaluating the data to determine the state's rate of illegal sales to minors. The Center for Safe Communities and Schools at Texas State University - San Marcos oversees the field inspections. The Synar Survey is conducted according to research protocols approved by the Substance Abuse and Mental Health Services Administration's Center for Substance Abuse Prevention to ensure the findings are scientifically valid.



As seen in the chart above, since passage of the state's comprehensive tobacco control laws in 1997, Texas sales from 1998 to 2006 have dramatically decreased. Since 1998, the Texas rates were 24.0%, 13.0%, 14.6%, 13.4%, 12.9%, 15.7%, 23.8%, 15.5%, 12.4%, and 7.2% respectively. (The Annual Synar Report is for the Federal Fiscal Year (FFY) following the year in which inspections were conducted.) The FFY 2007 Synar Report showed a sales rate of 7.2%. An increase in CPA funding for local enforcement and increased retailer education provided by DSHS-funded regional Prevention Resource Centers (PRCs) have led to this dramatic rate reduction in illegal sales to minors across Texas.

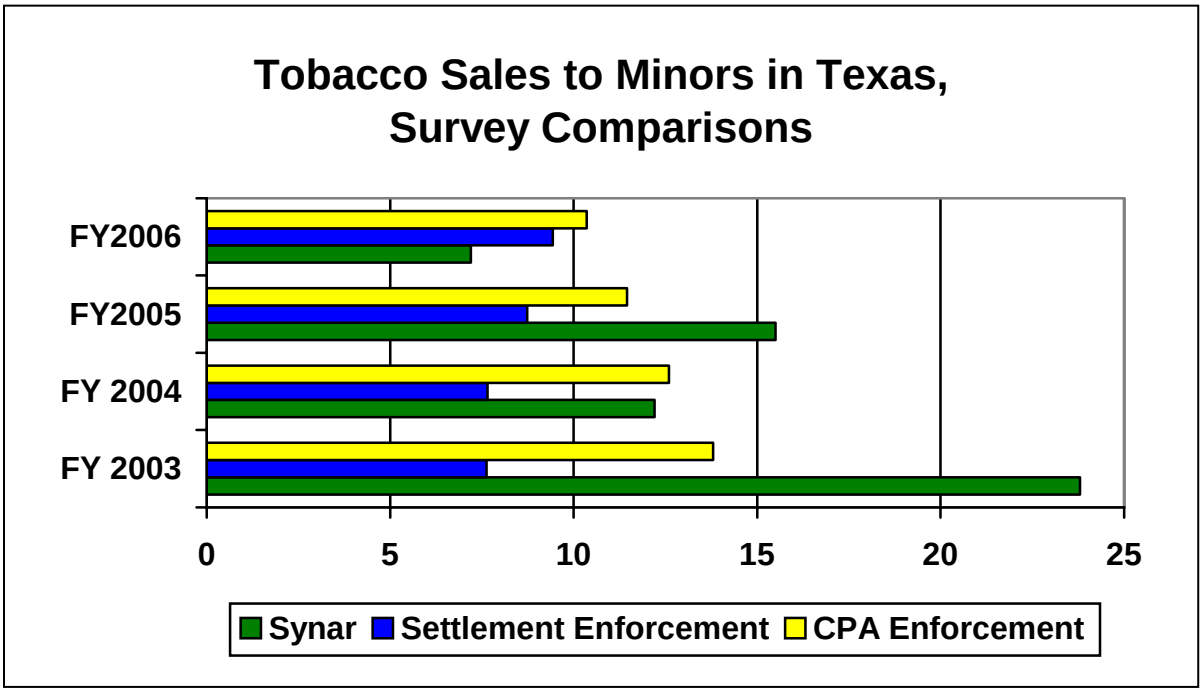


When the inspections began in 1997 (1998 in Texas) most states, including Texas, were well over the 20% sales rate. Since that time, sales rates to teens have dropped for most states (including Texas) with most recent national data (2005) showing that Delaware (.09%), Maine (5.3%), and Hawaii (5.3%) have the lowest sales rates. The highest rates reported for 2005 were Kansas (38%) and the District of Columbia (20.3%). Of Texas' surrounding states, Arkansas reported the lowest rate (4.2%) in 2005 and Oklahoma reported the highest rate (13.9%). Texas' rate of sales to teens in 2005 was 12.4%, a figure that dramatically decreased to 7.2% in 2006.

Comptroller of Public Accounts

In addition to the annual Synar Survey, which is performed at the same time each year, the Comptroller of Public Accounts (CPA) tracks enforcement data from local law enforcement agencies that are funded by CPA grants under Texas Health & Safety Code §161.088, and by tobacco settlement dollars from DSHS under Texas Government Code §403.105. The enforcement agencies include municipal police departments, county sheriffs' departments, and county constables that provide comprehensive enforcement of the state's tobacco laws. In addition, the CPA provides grants to school-based law enforcement agencies to conduct enforcement and education activities appropriate to a school setting.

During the year prior to the 2006 Synar Survey, data collected from the CPA-funded law enforcement agencies showed that 10.36% of retail stores inspected statewide illegally sold tobacco products to minors. When agencies funded by the DSHS tobacco settlement and other local law enforcement were included, the illegal sales rate for the state was 10.44% compared to the 7.2% Synar Survey rate in 2006 and 9.43% in Beaumont/Port Arthur. In the year prior to the 2005 Synar Survey, the rate for CPA funded agencies was 11.45% with an overall state rate of 11.29% while the Synar Survey resulted in a 12.4% rate of illegal sales to minors. The rate of illegal sales in the Tobacco Settlement area was 8.73%. Though methodology for the two different data sets (Synar Survey is a scientific random selection and CPA is self-selected/self-reported by grantees) are dramatically different, these figures show that when comprehensive enforcement activities are supported with necessary fiscal and staffing resources, a positive impact can be made in reducing the number of illegal tobacco sales to minors.



Enforcement Actions

"Measures that have had some success in reducing minors' access include restricting distribution, regulating the mechanisms of sale, enforcing minimum age laws, and providing merchant education and training."

David Satcher, MD, PhD, Surgeon General

Reducing Tobacco Use, A Report of the Surgeon General – 2000

While both the Texas Department of State Health Services (DSHS) and the Comptroller of Public Accounts (CPA) have enforcement mandates, each agency works collaboratively to ensure that tobacco enforcement in Texas is effective, efficient, and comprehensive at local levels where true enforcement takes place.

Since passage of the state's comprehensive tobacco laws in 1997, staffers from the CPA and DSHS have met on a regular basis to communicate best practices in order to develop necessary infrastructure and collaborative relationships to limit youth access to tobacco. The Office of the Attorney General (OAG) has also been an active partner in reducing youth tobacco access. Through their Consumer Protection and Public Health Division and under authority of the Texas Deceptive Trade Practices - Consumer Protection Act, the Attorney General has negotiated voluntary compliance settlements with several large retail companies that includes a provision that these companies will not hire minors to sell tobacco. The Attorney General has been creative in addressing new challenges, such as Internet sales of tobacco, by negotiating settlements with credit card companies, including Visa, MasterCard, and American Express, to prohibit online tobacco purchases using one of these cards.

Texas Tobacco Enforcement Collaborative Agencies

- Comptroller of Public Accounts
- Texas Department of State Health Services:
  - Community Mental Health & Substance Abuse Services Division
- Texas State University – San Marcos:
  - Center for Safe Communities and Schools
  - Texas Statewide Tobacco Education & Prevention (STEP) Program
- Office of the Attorney General

Enforcement Activities

Tobacco enforcement in Texas is conducted using a multi-pronged approach that utilizes both local and state level resources. The CPA, under Texas Health & Safety Code §161.088, and DSHS, under Texas Government Code §403.105, provide funding to local law enforcement agencies including municipal police departments, sheriffs' departments, constable offices, and school-based police agencies. While CPA grants are made to

agencies statewide, DSHS only contracts with law enforcement agencies in the southeast Texas area constituting the tobacco settlement initiative target area.

Funded agencies use the state's model for tobacco enforcement, developed by the CPA and the Texas STEP program at Texas State University – San Marcos in the 1990s. This model includes education of retailers, the public, and youth; inspections of retailers; and enforcement of the state's retail sales laws through undercover compliance checks and enforcement of the state's minor-in-possession of tobacco statute. This model has provided the core of tobacco law enforcement since the law passed in 1997 and has since become a model for other states, emphasizing voluntary compliance created through the partnership between local law enforcement agencies and local retailers.

CPA grants range from $2,000 to $25,000 annually, and in Fiscal Year 2006, 93 local law enforcement agencies and 88 school districts with school-based police were funded. The DSHS contracts ranged from $5,000 to $75,000, funding nine agencies within the target area. Appendix A provides a detailed look at activities of each individual police agency during the year prior to the Synar Survey in 2005 and 2006. Below is a summary of funded activities reported this biennium:

- 2005: Law Enforcement Activities Statewide Totals:
  - Compliance Education
    - 3,625 Retailers
    - 18,472 Parents
    - 12,245 Educators
    - 1245 Law enforcement officers
    - 318,925 Individuals received educational materials
    - 267,605 Children educated
  - Inspections
    - 8,579 Retail inspections made
    - 1,538 Number of stores with at least one violation found
    - 1,980 Total violations found
    - 364 Total number of citations issued
  - Enforcement
    - 6,286 Undercover compliance checks conducted
    - 710 Sales made to minors during compliance checks
    - 675 Citations written for sales to minors
    - 3356 Minor-in-possession (MIP) of tobacco citations written

- 2005 Local Law Enforcement Activities
  - Compliance Education
    - 3,625 Retailers
    - 5,324 Parents
    - 1,886 Educators
    - 939 Law enforcement officers
    - 226,058 Individuals received educational materials
    - 54,501 Children educated

- Inspections
  - 6,464 Retail inspections made
  - 1,321 Number of stores with at least one violation found
  - 1,702 Total violations found
  - 286 Total number of citations issued
- Enforcement
  - 5,082 Undercover compliance checks conducted
  - 582 Sales made to minors during compliance checks
  - 555 Citations written for sales to minors
  - 1,947 Minor-in-possession of tobacco citations written

- 2005: School-Based Law Enforcement Activities
  - Compliance Education
    - 13,148 Parents
    - 10,359 Educators
    - 306 Law enforcement officers
    - 92,867 Individuals received educational materials
    - 213,104 children educated
  - Enforcement
    - 1,395 Minor-in-possession of tobacco citations written

- 2006: Local Law Enforcement Activities
  - Compliance Education
    - 3,579 Retailers
    - 4,643 Parents
    - 1,432 Educators
    - 706 Law enforcement officers
    - 14,061 Individuals received educational materials
    - 52,489 Children educated
  - Inspections
    - 6,823 Retail inspections made
    - 1,632 Number of stores with at least one violation found
    - 2,106 Total violations found
    - 241 Total number of citations issued
  - Enforcement
    - 4,341 Undercover compliance checks conducted
    - 530 Sales made to minors during compliance checks
    - 459 Citations written for sales to minors
    - 2,531Minor-in-possession of tobacco citations reported (Note: Not all MIPs are reported to the Comptroller's office, therefore this is a minimum number)

- 2006 School-Based Law Enforcement Activities
  - Compliance Education
    - 4,749 Parents
    - 5,293 Educators
    - 187 Law enforcement officers
    - 99,128 Individuals received educational materials
    - 136,695 children educated
  - Enforcement
    - 1,240 Minor-in-possession of tobacco citations written

In addition, the CPA takes an active part in conducting its own inspection of tobacco permit holders to ensure compliance with laws that have both misdemeanor and administrative consequences. The CPA's enforcement and criminal investigation divisions conduct these comprehensive inspections of thousands of retailers annually. These inspections demonstrate that many retailers comply with the state's retail tobacco laws. In 2006, in addition to citations issued by local law, the Comptroller's Office completed 5,304 inspections, with 345 inspections that had one or more violations that resulted in collection of civil penalties of $146,300.00. These penalties are assessed against store owners.

Although the demonstrated level of compliance is high, during the same period the Comptroller's staff found the following violations:

- FY 2003 – 182 Total violations
  - 70 Lack of employee notification form (Health & Safety Code §161.085)
  - 19 Minor's ability to access tobacco products (Health & Safety Code 161.086)
  - 86 Lack of state approved warning signs (Health & Safety Code §161.084)
  - 7 Vending machines accessible by minors (Health & Safety Code §161.086)

- FY 2004 – 380 Total violations
  - 142 Lack of employee notification form
  - 67 Minor's ability to access tobacco products
  - 3 Outdoor signage violations (Health & Safety Code §161.122)
  - 2 Sales to a minor (Health & Safety Code §161.082)
  - 2 Vending machines accessible by minors
  - 164 Lack of state approved warning signs

- FY 2005 – 284 Total violations
  - 12 Sales to a minor
  - 137 Lack of state approved warning signs
  - 76 Lack of employee notification form
  - 51 Minor's ability to access tobacco products
  - 4 Vending machines accessible by minors
  - 1 Distribution of tobacco promotional materials (Health & Safety Code §161.087)
  - 3 Outdoor signage violations

- FY 2006 – 210 Total violations
  - 1 Sale to a minor
  - 121 Lack of state approved warning signs
  - 41 Lack of employee notification form
  - 46 Minor's ability to access tobacco products
  - 1 Vending machine accessible by minors

For a complete listing of Comptroller enforcement activities by city and county, see Appendix B.

Support Activities for Enforcement of Texas Tobacco Laws

During the period between the 2005 and 2006 Synar Survey, DSHS and CPA conducted a number of supportive outreach activities to educate Texas law enforcement, judicial officials, tobacco retailers, and local communities about the state's tobacco law, the importance of complying with these laws, and potential consequences for failure to comply.

Merchant Education Each tobacco retailer (merchant) in Texas must obtain a permit from the Texas Comptroller's office before beginning to sell tobacco products. In addition, each tobacco retailer must renew their license to sell tobacco products every two years, on the even numbered year. When a tobacco retailer is established or when they renew their permit, they receive a packet of information from the Comptroller's office concerning their role in enforcing tobacco laws in Texas. Texas continues to distribute a merchant education packet using a Texas flag design; "I Can't Sell – You Can't Buy /Under 18 No Tobacco/Together We Can Stop Kids from Buying Tobacco." A warning sign that is part of the campaign is distributed to retailers. In 2005, the following materials were included in the retailer guideline packet distributed to all retailers renewing tobacco sales permits: Warning signs in both English and Spanish; warning stickers for vending machines; a new poster that illustrates need for checking IDs; a flyer that details the quickest way to check ID; an employee booklet providing information on how employees can comply with the law; cash register stickers with a new logo that states, "I check ID"; a brochure that summarizes the Texas law; and a four page information sheet for the tobacco retailers' permit requirements.

The Comptroller's Office licenses "seller training programs" that provide classes to merchants and their employees. There are 19 tobacco seller education programs located in communities across the state.

Retailer visits were made by members of tobacco prevention coalitions, regional Prevention Resource Centers (PRCs), Texas Department of State Health Services Tobacco Specialists, Texas Comptroller field officers, local law enforcement officers, health association members and other volunteers requesting that retailers comply with State law. DSHS Substance Abuse Services funds 11 Prevention Resource Centers – one each HHSC region. The PRCs are required to visit at least 100 retailers per month requesting voluntary compliance and providing information and signs. The 11 Prevention Resource Centers tripled the number of retailers contacted the year before by visiting 13,133 retailers in FY05 to ask for voluntary compliance with Texas tobacco law.

Community Education Local law enforcement agencies, the Prevention Resource Centers, DSHS Substance Abuse Services-funded prevention programs, the American Heart Association, the American Cancer Society, DSHS Prevention and Preparedness, and many school districts across the state included minors and tobacco information in educational presentations. Aimed at youth and adults, these

presentations provided the message that tobacco is harmful and addictive, as well as information concerning state laws. During the year, the DSHS Substance Abuse Services-funded PRCs and prevention programs facilitated prevention presentations to 43, 063 adults and 281,493 youth in local communities across Texas. Thirteen DSHS/Substance Abuse Services-funded prevention providers provided the CDC-approved Life Skills Training program to 50,022 youth. Seven hundred sixteen youth participated in the evidence-based Toward No Tobacco Use curriculum.

As previously mentioned, the Comptroller's Office, through its grant-funded local law enforcement agencies and school district police, conducted compliance education to minors, retailers, court personnel, as well as enforcement activities across the state.

In 2006, the Texas Teen Summit and Comprehensive Tobacco Prevention Conference, held annually in July, provided tobacco prevention and control education to 253 youth and 311 adults representing local law enforcement, local school districts and community-based organizations. In July 2005, 132 youth and 293 adults participated in the annual conference.

Throughout most of Texas, DSHS has made available an eight-hour awareness class for minors cited for tobacco possession. In FY06, 2,795 youth participated in the awareness classes.

Media The "Worth It?" campaign is the public education campaign by DSHS' Mental Health and Substance Abuse Division aimed at educating teens about the Texas Tobacco Law and its consequences. The campaign is funded by the Comptroller's Office and through Tobacco Settlement funds. The teen-focused "Worth It?" campaign (www.worthit.org) is supplemented by the "Enforcing is Easy" media campaign (www.texastobaccolaw.org), which is directed at parents, retailers, and law enforcement, and intended to educate adults about SB55. The campaign was developed by DSHS for the Comptroller's Office. The public service announcements (PSAs) and other materials promote the message that everyone has the responsibility to keep tobacco out of the hands of youth. DSHS-funded prevention providers throughout the state provided more than 1,162 public service announcements, news articles, press releases and editorials in FY05 and 634 local media contacts in FY06.

The Texas Tobacco Prevention Hotline The Texas Tobacco Prevention Hotline (1-800-345-8647) is a vehicle for citizens in communities statewide to report violations of the Minors and Tobacco law. Citizens can call toll-free to report a merchant selling tobacco products to minors, tobacco advertising within 1,000 feet of a church or school, a cigarette vending machine that is accessible to minors, or other violations. Once the service determines the caller's particular need, the caller is transferred to the proper authority. This bilingual service is available 24 hours per day.

The impact of these efforts was shown not only through the improved interagency cooperation and collaboration at the state level, but also at the local level when the state's 2006 Synar Report sales rate fell to 7.2%, well below the 20% penalty threshold.

Prevention & Cessation Activities

"I am encouraged by the declining smoking rates in the United States in recent decades. However, every day nearly 5,000 people under 18 years of age try their first cigarette, and in 2001, an estimated 46.2 million American adults smoked. These numbers represent an enormous emotional and financial burden for their families and our health care system."

Richard Carmona, MD, MPH, FACS, Surgeon General

The Health Consequences of Smoking, A Report of the Surgeon General – 2004

The Texas Department of State Health Services tobacco prevention and control activities are guided by goals and objectives that were developed through a statewide strategic planning process that included regional and local stakeholders and partners. These goals echo the Texas Interagency Tobacco Task Force Legislative Plan presented to the Texas Legislature in 1998, as well as the comprehensive approach promoted by the Centers for Disease Control and Prevention's *Best Practices for Comprehensive Tobacco Control Programs* manual released in 1999.

These activities include

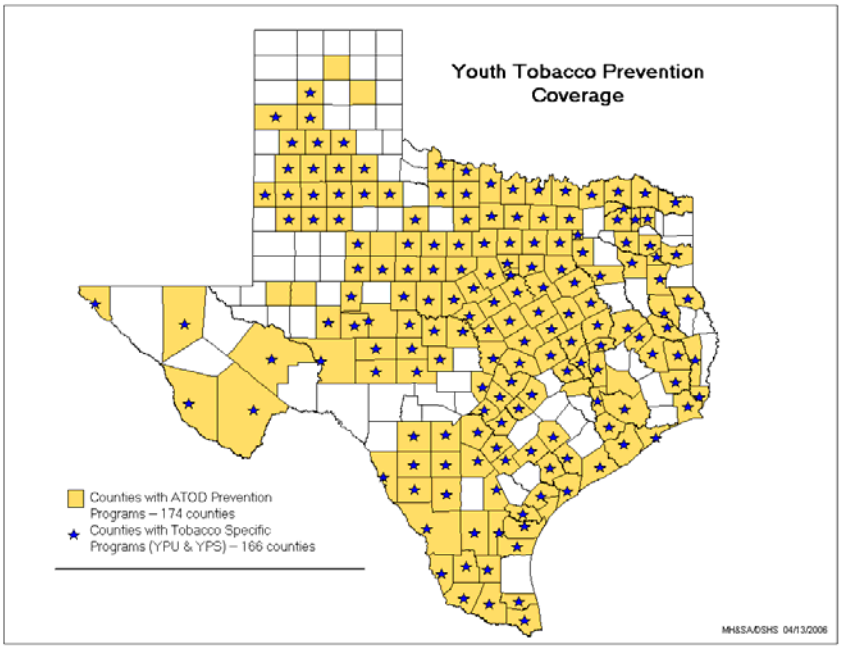
- Preventing initiation of tobacco use,
- Increasing cessation of tobacco use by youth and adults,
- Eliminating exposure to secondhand smoke in public places, and
- Eliminating disparities among diverse and special populations.

The final activities discussed in this report are media activities, which by their nature include multiple goals and support programs.

DSHS has assessed tobacco prevention and cessation activities across two divisions, Mental Health and Substance Abuse Services and Prevention and Preparedness, looking at agency priorities, functional alignment, and available resources to recommend options for the tobacco program improvement. As a result, DSHS has integrated the tobacco programs of both divisions into the Division of Mental Health and Substance Abuse Services to assure the most effective and efficient statewide efforts. This integration was effective September 1, 2006. The state will continue to provide community education, retailer education, retailer incentives, media campaigns, and community mobilization strategies to support the work of local law enforcement. The integration will bring increased coordination across these strategies in 2007.

The DSHS Tobacco Prevention and Control program provides a regional staff infrastructure to meet the needs of Texans at the local level. There are tobacco program coordinators in eight Health Service Regions. Eleven Prevention Resource Center tobacco specialists provide services in the counties of each of the 11 Health and Human Service regions. The regional tobacco staff in the eight Health Service Regions plays a

crucial role in program implementation, since there is not an established city/county health department infrastructure for tobacco control in Texas, as those existing in states such as California. A regional approach is further necessitated by the sheer size and geographic distribution of Texas. Community contractors, funded by the Texas Tobacco Settlement funds, are concentrated in the southeast Texas counties of Jefferson, Fort Bend, Harris and Montgomery. DSHS community-based substance abuse prevention providers also supplement efforts of central office and regional staff.



Preventing Initiation of Tobacco Use

DSHS addresses youth initiation in a comprehensive approach aimed at schools and communities. Each of the eight tobacco Regional Staff Coordinators, 11 Prevention Resource Centers and local contractors provide educational activities as part of their program implementation. Some of these activities are:

- The Prevention Resource Centers, DSHS-funded prevention programs, the American Heart Association, the American Cancer Society, local law enforcement, and many school districts across the state provide educational presentations providing communities with tobacco information. Aimed at youth and adults, these presentations provided the message that tobacco is harmful and addictive. Information concerning state laws is also presented.
- Statewide promotion of Project Towards No Tobacco Use, a CDC evidence-based curriculum, proven to have a positive impact on youth attitudes and beliefs regarding tobacco use and better able to equip them to resist using tobacco products.

- Through a contract with the Center for Safe Communities and Schools (CSCS) at Texas State University, DSHS sponsors an annual conference and teen summits for youth that coordinate input from a statewide network of youth called the Teen Ambassadors. The Teen Ambassadors are leaders in their own communities, selected by their peers at the statewide conference. CSCS provides the Teen Ambassadors with education on tobacco issues, public speaking, and leadership skills. The Ambassadors volunteer their time to assist with implementation of activities throughout the state.
- In partnership with the Texas Academy of Family Physicians, DSHS promotes the Tar Wars educational outreach and poster contest statewide. Tar Wars is a free, nationwide tobacco education campaign for fourth and fifth graders. The curriculum is consistent with CDC's Guidelines for School Health Programs to prevent tobacco use among youth. The Tar Wars program uses medical professionals to educate and motivate students to be tobacco free and encourages community involvement.
- Multiple youth rallies and summits are conducted statewide to educate youth on dangers of tobacco use, engage and coordinate efforts to combat the issue, and to encourage overall youth participation in the comprehensive tobacco initiative.

In 1995, the Texas Legislature passed SB 1 prohibiting use of tobacco products by adults and possession of tobacco products by minors at school-related or school-sanctioned events on or off school property. In 1997, the Texas Legislature passed SB 55, prohibiting purchase, consumption, possession or receipt of tobacco products by anyone younger than 18. The bill also requires DSHS to provide a tobacco awareness program for youth cited as minor-in-possession of tobacco, which allows for community service if no classes are available, and allows judges to suspend or delay driver licenses for those who neither take the class nor perform community service. The Texas Youth Tobacco Awareness Program (TYTAP) minor-in-possession classes provided by DSHS raise awareness of the dangers of tobacco and provide youth tobacco users with cessation assistance. Although this is an awareness class, research on the program has shown a 35% cessation rate among participants 6 months after completing the class. A train-the-trainer program has been developed and revised to sustain the program. DSHS certifies instructors for the TYTAP program and maintains a current database of available instructors at the *Worth It?* Website: www.worthit.org

DSHS regional coordinators and community contractors provide training to law enforcement and the community to increase compliance with and enforcement of youth access laws. Regional staff and contractors also work with school districts to ensure that schools comply with SB 1 and to help them establish an enforcement protocol.

DSHS staff, community contractors, the American Cancer Society, and other voluntary agencies work together to provide school-based and community-based education and outreach, as well as education of local decision-makers. Special efforts are made to increase youth participation in tobacco control activities at the state and local level.

Cessation of Tobacco Use by Adults and Children

Cessation efforts educate the public, and also focus on healthcare providers in an effort to increase their role in patient cessation. Regional staff and community contractors have worked to make direct contact with providers locally. The DSHS program has made major strides toward this goal with development and dissemination of the *Yes You Can* Cessation Tool Kit. This kit was developed for use by health care providers, and promotes system changes in clinical settings that assure all patients are assessed regarding their tobacco use status and provided appropriate counseling and resources. It is directly linked to the *Yes You Can* media campaign.

The Tool Kit includes multiple reminders and aids for clinic staff to identify patients who use tobacco and to encourage them to quit. Among kit materials are an introductory staff guide; tips on counseling patients; pharmacotherapy guide; prescription pad; vital signs stickers for patient charts; fax referral forms; list of resources; patient brochures; Quitline cards; a poster; and audio scripts for on-hold telephone messaging.

DSHS funds a toll-free telephone Quitline through the American Cancer Society. The Quitline is answered 24 hours a day. Once a person contacts the Quitline, a counselor provides self-help materials, and, on request, schedules and conducts three counseling sessions. Clinicians provide clients with a Quitline referral during an assessment. Also, clinicians may directly fax the Quitline with the patient Fast Fax Referral form. The Quitline will then proactively contact the client to set up counseling services. The American Cancer Society provides free Nicotine Replacement Therapy to Beaumont/Port Arthur residents, and Fax Referrals statewide, as part of counseling protocol. Both the *Yes You Can* Tool Kit and free Nicotine Replacement Therapy are designed to drive more callers to the Quitline.

DSHS is focusing with health insurance providers to educate them about clinical cessation counseling and pharmacotherapy.

State level partnerships have been developed and maintained to ensure program success. This partnership includes the Texas Medical Association's Physician Oncology Education Program, Nurses Oncology Education Program, the Texas Cancer Council, and the American Cancer Society. It also provides additional support to promote incorporation of HHS Clinical Practice Guidelines, the *Yes You Can* Tool Kit, and the Quitline to healthcare providers and insurers.

DSHS contracted with the University of Texas at Austin to work with the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) Program to incorporate tobacco use assessments in WIC clinical services, to promote cessation services via the Quitline with the American Cancer Society, and to use culturally appropriate materials for Spanish speaking audiences and pregnant women or WIC-eligible families.

The Financial Returns from Community Investments in Tobacco Control Final Report released in June 2006 by the Center for Health Research Kaiser Permanente Northwest concluded that investing in comprehensive tobacco control efforts of the Texas Tobacco Prevention Initiative is a highly cost-effective use of resources that provides substantial net financial savings to Texas employers, health plans, and the State. The state contracted Kaiser Permanente to study the return on investment from reductions in adult smoking associated with $3 per capita spending for comprehensive tobacco control programs in East Texas. The return on investment study showed that in 2003, the single year program costs of $11.3 million ($2.71 per capita) implementing comprehensive programming in Harris, Fort Bend, Montgomery and Jefferson counties resulted in over 29,800 fewer adult smokers in 2003; and savings of over $252 million in medical care costs and lost productivity.

Cigarette smoking is the number one cause of premature death and disability in the United States, and costs society over $157 billion annually in medical care and health-related productivity (Centers for Disease Control and Prevention, 2002). In Texas, smoking is responsible for 24,100 annual deaths and $10.6 billion in excess medical care expenditures and lost productivity. Annual medical care costs of smoking are more than $4.5 billion. The estimated $6.1 billion in annual productivity losses are associated with death-related forgone lifetime earnings. The report purposes that a comprehensive sustaining tobacco prevention and control program through the state will have a long-term reduction in tobacco use. Outcomes from one year of spending of $3.00 per capita (approximately $68 million) for a statewide program would yield an estimated 163,600 fewer Texans who smoke statewide. After five years, under the statewide comprehensive program over $1.4 billion in total medical care and productivity costs, over $1.0 billion in medical care expenditure savings, and over $365 million in future productivity costs. (See Appendix C.)

Eliminating Exposure to Secondhand Smoke (SHS)

"The health effects of secondhand smoke exposure are more pervasive than we previously thought," said Surgeon General Carmona, vice admiral of the U.S. Public Health Service. "The scientific evidence is now indisputable: secondhand smoke is not a mere annoyance. It is a serious health hazard that can lead to disease and premature death in children and nonsmoking adults."

Richard Carmona, MD, MPH, FACS, Surgeon General
The Health Consequences of Involuntary Exposure to Tobacco Smoke, A Report of the Surgeon General,

June 2006

The Surgeon General's Report in June 2006 made it clear that secondhand smoke (SHS) is a serious health hazard. Strategies recommended by CDC to reduce exposure to secondhand smoke include:

- Enforcement of federal, state, and local SHS laws
- Educating the public (including parents), business owners, and community leaders about the harmful effects of SHS and the laws prohibiting or restricting smoking
- Technical assistance to offer evidence-based programs and strategies to communities
- Educating health professionals on how to assess and counsel regarding situations where SHS should be eliminated
- Research on the lack of adverse economic impact on communities that have passed strong smoke-free laws and ordinances.

DSHS staff have collected data, and provided the evidence to local policy makers, that comprehensive smoke-free policies are associated with reductions in dangerous levels of the air pollutant respiratory suspended particles (RSPs) in SHS through indoor air quality tests. DSHS collaborated with the University of Texas in random tests of 17 bars throughout Austin approximately one month before and after a 100% smoke-free ordinance went into effect. The tests found that there were dramatic drops in air pollutants, including the RSP particulate matter, which is linked to heart disease and cancer, following of the smoking ban.

The tests also showed dramatic reduction of carbon monoxide levels after the ordinance went into effect. This data is currently being used to demonstrate to cities considering similar ordinances that smoke-free policies do protect non-smoking employees and patrons from health risks associated with SHS.

The University of Houston, a DSHS contractor, has developed and maintains a database of municipal clean indoor air ordinances. The Web-based municipal ordinance database provides current information on local policies regarding SHS. This data identifies populations disparately exposed to secondhand smoke. This data is significant to providing evidence and direction on policy changes for worksites, restaurants, business

owners, city government, community coalitions, etc. This data assists in increasing audience awareness of SHS, and highlights the need to protect populations that are disparately affected. In addition, this data is a great resource for community coalitions and other groups in addressing SHS policy needs, such as the Texas Cardiovascular and Stroke Council identification of Heart Healthy Cities. The Texas Smoke Free Ordinance Website is http://txshsord.coe.uh.edu.

DSHS staff works with community contractors and local community groups to educate the public about the health effects of secondhand smoke. Education targets students, parents, faith communities, local governments, and employers.

Local efforts of the regional tobacco staff, contractors, and coalitions, as well as state efforts facilitated by partners such as the American Cancer Society, American Heart Association, and the American Lung Association, have brought about significant policy changes that impact SHS exposure. In 2006, the cities of Austin, Beaumont, Harlingen, Victoria, and Laredo successfully passed 100% smoking bans. The City of Ft. Stockton passed local policy to reduce SHS exposure. Local coalition efforts in Houston strengthened the city's clean indoor air ordinance to include bars. The City of Socorro most recently passed a comprehensive smoking ban comparable to that of its sister city, El Paso.

The Harris County Psychiatric Center has adopted a smoke-free campus policy. East Texas Medical Center in Athens has also adopted a smoke-free campus, covering 40 health care facilities in Henderson County.

SHS exposure among infants and toddlers is a distinct health risk. Texas has regulated tobacco use in childcare centers since 1985. Now the regulations are stricter, with the Texas Department of Family and Protective Services (DFPS), which is responsible for licensing and registering childcare facilities, restricting tobacco use in childcare centers and homes since September 2003. Starting January 1, 2007, Texas will restrict smoking in foster parents' homes at all times and in cars when children are present. DSHS tobacco program strategies focus increased awareness and adherence to the new regulation.

Eliminating Health Disparities Related to Tobacco Use

"Health disparities are the differences in the incidence, prevalence, mortality, and burden of diseases and other adverse health conditions that exist among specific population groups in Texas and the United States. Common characteristics of these populations include race, culture, gender, age, economic status, and geographic distribution. Other characteristics of these populations are social class, education, disability, and sexual orientation. Synonyms for disparity include inequality, unlikeness, disproportion and difference."

Office for the Elimination of Health Disparities
Texas Department of State Health Services
Center for Program Coordination

Tobacco-related health disparities refer to differences in health status, disease burden, and death rates in certain population groups when compared to the general population. Tobacco-related health disparities include differences among various priority population groups with respect to mortality, morbidity, exposure to secondhand smoke, and access to and use of cessation resources. Priority populations exhibit higher prevalence of tobacco use and/or greater incidence of tobacco-related death and disease.

Throughout the state, DSHS staff works to engage faith-based communities, health care providers, community groups, racial and ethnic groups, and other diverse and special populations in its tobacco prevention efforts.

In FY06, CDC supplemental funding to address tobacco-related disparities allowed DSHS to contract with the University of Texas at Austin to promote elimination of tobacco-related health disparities in each DSHS Health Service Region. DSHS regional tobacco coordinators prepared regional population assessments and compared these to data related to programmatic activities, identified gaps, and developed recommendations on program implementation based on these findings. This data feeds into continuing efforts to identify and develop a group of local and statewide stakeholders that will develop an action plan to address tobacco-related disparities.

The Youth Tobacco Survey, Adult Tobacco Survey, and Behavior Risk Factor Surveillance System are used to identify tobacco use prevalence, secondhand smoke exposure, cessation rates, and changes in attitudes and beliefs among diverse and special populations. The College Tobacco Survey provides additional insights into the 18-24 year-old population, measuring their attitudes and beliefs regarding industry impact and dangers of tobacco use. The Trade and Technical School Survey aims to describe the smoking behaviors and attitudes of technical school students and compare these smoking behaviors and attitudes to those of four-year university students. DSHS contracted with the University of Texas at Austin to create strategic plans for identifying and eliminating tobacco-related health disparities. As a result, UT Austin conducted a tobacco-related health disparity case study evaluation in Beaumont/Port Arthur and at the state level. This data is also used as a tool to gauge support for tobacco-control policies.

All communities do not share the burden of tobacco equally. For example, while current cigarette use is typically high among both white (21.9%)[4] and black (25%)[4] males, the death rate due to lung cancer[5] among white males (79.5 per 100,000) is much lower than among black males (104.1 per 100,000). Smoking rates tend to be much higher in rural communities than in metropolitan areas. Also, smoking rates and the disease burden are higher among adults with low incomes and education than among those with higher levels of income and education.

Research by the University of Texas School of Public Health and Baylor College of Medicine identifies how to best reach special and diverse populations to yield the most impact. Specifically, the research identified outreach and media venues most appropriate for young males and females, Hispanics, Asians, and African Americans.

To reach populations affected by tobacco-related health disparities that are also targeted by tobacco marketing and promotion, DSHS, using Texas Tobacco Settlement funds, contracts with several community agencies to specifically address these populations in the Houston and Beaumont/Port Arthur areas. In addition, all tobacco settlement community contractors are required to focus at least one third of their efforts on addressing tobacco-related health disparities.

Based on health disparities research, the following activities have been implemented to address identified youth and adult disparities:

- Reaching large African American populations through interventions in Jefferson, Harris, Fort Bend, and Montgomery Counties.

- Tobacco prevention and cessation activities reaching the Asian population in Harris County.

- Increasing awareness on dangers of secondhand smoke, providing cessation services, and preventing youth initiation among Latino/Hispanic families through the *Mi Familia No Fuma* media campaign.

- Using media outreach to increase awareness of secondhand smoke, cessation, and youth prevention in US/Mexico Border areas.

- Conducting outreach among the 18-24 year-old population on secondhand smoke, cessation, and effective policies for regulating tobacco use on college and trade/technical school campuses and in recreational venues.

- Conducting outreach and media activities to prevent tobacco use initiation among Anglo teenage males.

[4] *2004 Texas Behavioral Risk Factor Surveillance Survey, DSHS*
[5] *Texas Cancer Mortality 2001*

- DSHS partnered with the WIC Program (Women, Infants and Children Special Nutrition Program) to bring information on effects of secondhand smoke and provide access to cessation resources, such as the Quitline (1-877-YES-QUIT), to pregnant women and those with children less than five years old. Nearly 65% of all women who give birth in Texas are enrolled in WIC. WIC clinics located throughout Texas are excellent channels for reaching pregnant women who smoke to promote cessation and reduction of tobacco use during pregnancy. This partnership also helps in reaching blue-collar families, who are among the identified high-risk populations.

Reducing Tobacco Use through Taxation

The $1 increase in the tax on a pack of cigarettes that Texas smokers are paying with the legislation effective January 1, 2007, will have an impact on tobacco use across the state. Increases in the real price of cigarettes significantly reduce cigarette smoking, and young people are usually more sensitive than adults to such price changes. The American Cancer Society predicts that the increase, which will put the state tax at $1.41 per pack, will help persuade about 143,300 adult Texans to give up the habit while helping to keep about 284,000 young Texans from ever lighting up.

Media Activities

DUCK – Tobacco Is Foul

By the sixth grade, most students are beginning to make decisions about whether or not to use tobacco products. In some cases, students try tobacco because of peer pressure, because their curiosity is piqued by images of celebrities smoking, or due to the enticement of tobacco advertising.

For years, the tobacco industry used Joe Camel to market their products. At the first annual statewide youth tobacco conference, Texas teens countered with the same strategy, developing a hip, wisecracking, animated animal icon called DUCK to attract their peers and change attitudes and behaviors about tobacco and its harmful effects. The DUCK has proven to be a fun-loving and approachable character, whether animated on television or live in costume.

The DUCK campaign is designed to reach 9 to 12 year olds through advertising and outreach activities. Advertising has traditionally included television, radio, and theater placements, with some ads available in Spanish. The campaign includes a Web site, www.ducktexas.com. In FY2006, advertising efforts were expanded to include Internet ads and videos to reach this technologically savvy audience. Almost 1,700 students at 15 schools participated in outreach activities throughout the year. Because of funding limitations, the paid media campaign reaches only the tobacco initiative target area, Beaumont/Port Arthur, with supplemental activities in nearby Harris, Fort Bend and Montgomery Counties.

The goal of the DUCK campaign is to prevent youth from ever trying tobacco and to motivate those who are already experimenting to quit. Messages strive to de-glamorize tobacco use by helping youth understand just how disgusting and harmful the product is, what it can do to their bodies, and how unattractive it can make them look to their peers.

Worth It?

Tobacco prevention efforts are dwarfed when compared to the tobacco industry marketing budgets. Teens are bombarded with media messages, including glamorization of smoking by Hollywood and smokeless tobacco use by many prominent athletes.

The *Worth it*? campaign seeks to capture teens' attention by acknowledging their maturity and giving them facts about tobacco use, challenging them to decide for themselves. The campaign focuses on preventing tobacco use, helping teens quit tobacco, and educating teens about the consequences of tobacco use.

Worth it? was created to educate Texas residents about laws and consequences of using tobacco as specified in Senate Bill 55 (SB 55). The target audience is teens aged 13-17, with a secondary audience of adults. The messages are that tobacco is not relaxing, that it tastes and smells bad, it won't help teens gain friends, and won't help to alleviate boredom. The campaign also raises awareness of the dangers of secondhand smoke to nonsmoking teens, and focuses on the legal consequences of tobacco use.

Worth It? advertising has traditionally included television, radio, mall, and theater placements, with some ads available in Spanish. In FY2006, advertising efforts were expanded to include Internet ads to reach this technologically savvy audience, with Web videos planned for FY2007. Due to funding limitations, the paid media campaign reaches only the tobacco initiative target area, Beaumont/Port Arthur, with supplemental activities in nearby Harris, Fort Bend and Montgomery Counties. The campaign Web site is: www.worthit.org.

SB 55 media efforts include a companion campaign for adults called "Enforcing it is Easy." These television and radio ads emphasize the responsibilities of parents, store clerks, and all adults in following the Texas Tobacco Law, which prohibits sale or distribution of tobacco products to minors. Paid media markets are determined each year. FY2006 markets included Abilene, Corpus Christi, Lubbock, Tyler and Waco.

Yes You Can!

"Yes You Can," or in Spanish, "Sí Se Puede," is the DSHS statewide tobacco cessation campaign encouraging Texas adults to take the first steps to quit tobacco by seeking the support and information they need. The ads primarily target a blue-collar male audience, but the overall message has broad appeal for smokers who want to quit. Research by DSHS indicates adult males have the highest rates of tobacco use in Texas.

Yes You Can assures tobacco users that even if they are unsuccessful at quitting tobacco the first few times, they can ultimately succeed. *Yes You Can* also reassures the tobacco user that resources and support are available through family, health care providers, and the American Cancer Society's toll-free Quitline.

The campaign includes television, radio, print, and outdoor advertising, with some ads available in Spanish. Ads are placed each year in the tobacco initiative target area,

Beaumont/Port Arthur, with supplemental placements in Harris County. As funds permit, additional markets throughout Texas are included. In FY2006, DSHS placed television and radio ads statewide through the Texas Association of Broadcasters (TAB). For a reduced rate, TAB member stations across the state ran cessation ads during a 12-week timeframe, although time slots and specific stations cannot be guaranteed through this arrangement. Although calls to the American Cancer Society Quitline increased slightly in the markets where the ads ran, much higher call volumes resulted from the targeted buys in Beaumont/Port Arthur and Houston. This was very apparent after print ads were placed in Beaumont/Port Arthur newspapers advertising the availability of free nicotine replacement patches to callers within the county.

For the first time since DSHS contracted with the American Cancer Society Quitline for cessation services, call volume exceeded the contract amount, an expense the American Cancer Society absorbed. The increased call volume was attributed to both the *Yes You Can* advertising campaign as well as a number of other events, such as national media attention to Peter Jennings' death from lung cancer and implementation of several comprehensive smoking ordinances in Texas cities.

Mi Familia No Fuma

Hispanics are a growing segment of the Texas population. Approximately 7.9 million people, about 34.6 percent of the state's population, are of Hispanic origin. Tobacco products are advertised and promoted disproportionately to racial and ethnic minority communities. Examples of target promotions include the introduction of a cigarette product with the brand name "Rio" and an earlier cigarette product named "Dorado," which was advertised and marketed to the Hispanic-American community.

The *Mi Familia No Fuma* campaign centers on the Hispanic family. Using the positive influence the family has on its members, the campaign taps into this dynamic in order to help everyone in the family be tobacco-free.

Through positive and inspirational images and messages, the *Mi Familia* campaign demonstrates that the Hispanic family unit can and will succeed in their dreams, work, and education, and that tobacco is not a part of family life.

The *Mi Familia* campaign consists of Spanish-language television ad, billboards, in-store posters, theater slides, transit ads, brochures, Quitline cards, and other printed materials to educate Hispanic families about tobacco prevention. Outreach activities with local churches and community groups are an integral part of the campaign. Paid advertising and outreach activities are conducted in the tobacco initiative target area, Beaumont/Port Arthur, and materials are made available to areas across the state. In FY2006, no paid

advertising ran because of reduced funding. Instead, the campaign focused on continuing the successful outreach activities. The campaign Web site, www.nofuma.org, received a major re-design. Television ads, in-store posters, and outreach activities are planned for FY2007.

Share Air

In FY2006, DSHS introduced "Share Air," a new media campaign to educate the public about the risks of secondhand smoke. This campaign targets both smoking and non-smoking adults. The campaign's goals are to increase the public's recognition of secondhand smoke as a general health hazard to people of all ages; increase public awareness that clean indoor air is as necessary for a healthy population as clean water, safe food and other standard public health measures; and to motivate people to take action to eliminate their exposure to secondhand smoke.

The *Share Air* campaign includes television, radio, outdoor, theater, Internet and print advertisements, as well as a Web site, www.shareair.org. Ads are available in English and Spanish. *Share Air* debuted as a statewide campaign in a media buy placed through the Texas Association of Broadcasters in spring 2006. Due to budget limitations, only the radio and television ads ran during FY2006. Other campaign elements will be used during FY2007.

Earned Media & Added Value

In addition to the paid media described above, community groups, volunteer agencies, and contractors work to raise public awareness through "earned" media—press releases, letters to the editor, and public service announcements on radio and television. Additionally, stations that run paid media schedules typically provide additional airtime for the campaigns by running additional public service announcements free-of-charge. The following activities from FY2006 are examples:

- The Texas Association of Broadcasters produced and ran free-of-charge a Spanish version of the English cessation ad DSHS placed in a 12-week media buy through their member stations.
- The *DUCK, Worth It?* and *Yes You Can* media campaigns earned $931,650 in added value through free public service announcements and media discounts provided by stations where advertising was placed, which represented almost a 70% increase in value added to the advertising budgets.
- The American Cancer Society invested $50,000 to run the *Mi Familia No Fuma* media campaign in San Antonio.
- A press release about effective tobacco cessation resources was distributed to statewide media in late December 2006 to help Texans trying to quit tobacco as part of a New Year's resolution. The release was posted to more than 20 web sites, and articles ran in the *Austin Business Journal, Austin American-Statesman, Bryan-College Station Eagle, Houston Chronicle, Pasadena Citizen* and *Del Rio*

News-Herald. Stories also ran on *KJTV-TV* in Lubbock and *KVII-TV* in Amarillo. The combined earned media value for the print and broadcast coverage was estimated at $10,700.

- School and community groups across Texas conducted tobacco prevention activities with students during the annual event Kick Butts Day on April 5, 2006, generating attention from their communities and local media. Some activities included:
    - Austin Middle School and the local public health department in Beaumont hosted a Kick Butts Basketball Game between students and faculty, generating coverage from local media.
    - Local health professionals and teens in El Paso held a news conference to draw attention to the toll of tobacco-related illness and disease in Texas. Students displayed 1,200 pairs of shoes to represent the number of Americans who die daily as a result of tobacco use. Youth were encouraged to make a pledge to be tobacco-free by making their handprints on an art wall.

1,200 shoe display at El Paso Kick Butts Day event

Future Plans

In June 2002, the Texas Department of Health (now the Texas Department of State Health Services) convened a team of tobacco control experts from the local, regional and state levels to develop a five-year strategic plan for tobacco use prevention and control. The goal is to develop a road map for the logical and systematic statewide expansion of the Texas Tobacco Prevention Initiative. The plan is attached as Appendix D.

Appendices

- Appendix A – Tobacco related enforcement activities as reported by local law enforcement agencies and school based police, 6/1/2004 – 5/31/2005 and 6/1/2005 – 5/31/2006
- Appendix B – The Financial Returns From Community Investments in Tobacco Control final report
- Appendix C - Tobacco Prevention and Control Strategic Plan, 2003 – 2008

Appendix A

Law Enforcement and School Based Police Activities

- Enforcement data include the number of inspections the law enforcement agency conducted with tobacco retailers in their jurisdiction, the number of undercover compliance checks (i.e., stings), the number of violations found during either an inspection or compliance check, the number of citations issued to retailers and the number of minor-in-possession of tobacco citations issued.
- "Compliance Education includes the total number of persons who received tobacco education by the law enforcement agency. Persons educated can include retailers, educators, law enforcement personnel, youth and the general public.

Appendix B

The Financial Returns From Community Investments in Tobacco Control final report

The Financial Returns from Community Investments in Tobacco Control
Final Report

Submitted to

Philip Huang, MD, MPH
Medical Director
Chronic Disease Prevention
Health Promotion Unit
Texas Department of State Health Services

By

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June 21, 2006

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Executive Summary

In Texas, smoking is responsible for 24,100 annual deaths and $10.6 billion in excess medical care expenditures and lost productivity. The annual medical care costs of smoking are more than $4.5 billion. To address the high costs of smoking, the Department of State Health Services implemented the Texas Tobacco Prevention Pilot Initiative in Houston and Southeast Texas. This report assessed the net financial returns to employers, health plans, and the State from the Pilot Initiative for the Pilot area. This report also assessed the potential financial benefits of statewide implementation of the Pilot Initiative.

Approach: We used a return on investment (ROI) model developed by the Kaiser Permanente Center for Health Research to calculate the net annual medical care and productivity savings over five years associated with 2003 program spending and smoking rate reductions from the Texas Tobacco Prevention Initiative. The Texas Tobacco Prevention Initiative is a comprehensive tobacco prevention and cessation program. In 2003, the Initiative spending in the Pilot area was $2.71 per capita. Based on this cost estimate, we estimated the net savings per quit, per capita, and per health plan member per month for the State, health insurance plans, and employers. The results reflect the outcomes for a one-year "snapshot" of new quitters from an ongoing Pilot Initiative program.

Results for the Pilot Initiative: Outcomes from one year of spending $2.71 per capita with total program costs of $11.3 million (2003 dollars) include:

- An estimated 29,870 fewer smokers in 2003.
- Total cost per quit of $380.

After five years, the Pilot Initiative saved:

- Over $252 million in total medical care and productivity costs.
    - Over $186 million in total medical care savings.
    - Over $66 million in future productivity costs.

Other results indicated:

- Including additional health plan-supported physician counseling to the Pilot Initiative increased the number of quitters by 7.7% with little impact on the ROI per capita estimates.
- Reductions in youth smoking in the Pilot area will prevent an additional $3.1 million ($12.37 per capita) in future medical care expenditures and lost productivity.

Results for statewide implementation: Outcomes from one year spending of $3 per capita with total program costs of $68.3 million (2003 dollars) include:

- An estimated 163,662 fewer smokers statewide.
- Total cost per quit of $418.

After five years, the statewide comprehensive program would save:

- Over $1.4 billion in total medical care and productivity costs.
    - Over $1.0 billion in medical care expenditure savings.
    - Over $365 million in future productivity costs.

ROI results indicate:

- With a $3 per capita investment in comprehensive programming, cumulative ROI per capita of $58 for the state, $44 for health plans, and $16 per capita for employers.

Conclusion: The Texas Tobacco Prevention Initiative provides substantial net financial savings to Texas employers, health plans, and the State. Investing in comprehensive tobacco control efforts is a highly cost-effective use of resources.

Introduction and Study Aims

Cigarette smoking is the number one cause of premature death and disability in the United States, and costs society over $157 billion annually in medical care and health-related productivity (Centers for Disease Control and Prevention, 2002). In Texas, smoking is responsible for 24,100 annual deaths and $10.6 billion in excess medical care expenditures and lost productivity. The annual medical care costs of smoking are more than $4.5 billion. The estimated $6.1 billion in annual productivity losses are associated with death-related forgone lifetime earnings. Currently, access to health insurance sponsored cessation services is limited (Gingiss and Boerm, 2005).

In 1999, smoking prevalence among Texas adults was 23.5%. In 2000, Texas initiated a comprehensive tobacco control program to reduce smoking rates among adults and youth. The Texas Tobacco Prevention Initiative was initially developed to implement and assess the effectiveness of alternative tobacco control program components and per capita spending levels. The Initiative was implemented at a $3 per capita spending level in Houston and Southeast Texas. The program included a media campaign, school and community programs, cessation (including a multi-session telephone tobacco cessation quitline provided by the American Cancer Society), and enforcement efforts. Program components were targeted to youth prevention and adult cessation efforts. In 2005, telephone quitline recipients could receive an eight-week course of nicotine replacement therapy at no cost.

An evaluation of the Pilot Initiative found that between 1999 and 2002, adult smoking rates fell 5.1% in the Pilot population compared to 2.5% in the non-Pilot areas (Meshack et al., 2003). The 2.6% difference in adult smoking suggests the Pilot Initiative was responsible for a .83% annual quit rate in the adult smoking population. A recent evaluation of adult smoking rates in 2004 showed a continuation of this trend. As of 2004, smoking prevalence is 15.8% among adults. Youth smoking rates also have declined considerably since the Pilot was implemented. Current smoking among high school students fell from 34% in 2000 to 18.8% in 2003 and 18.3% in 2005.

As part of the evaluation of the Pilot Initiative, the State of Texas contracted with researchers at the Kaiser Permanente Center for Health Research to estimate the return on investment (ROI) from reductions in adult smoking associated with $3 per capita spending for comprehensive tobacco control programs. We calculated the costs and net financial returns from the Pilot Initiative for the Pilot area population. We then estimated the net returns that might be realized from expanding the Pilot Initiative statewide. This report details the results of this effort.

The **Specific Aims** of this study were to**:**

1. Estimate the return on investment from the Texas Tobacco Prevention Initiative (Pilot Initiative) Program in the Pilot Area compared to no program.
2. Estimate the incremental ROI for health plans and employers of health plan efforts to provide additional enhanced delivery of 5As-based cessation services within the context of the Pilot Initiative program.

3. Estimate the medical care and productivity savings in the Pilot Area from reductions in high school smoking rates over a five-year period after the cohort ages into adulthood.
4. Estimate the return on investment from the statewide expansion of the Initiative Program.

For each aim, we calculated the net financial impacts of adult cessation on annual medical care expenditures and smoking-related productivity losses over a five-year period. The ROI estimates were calculated by adapting the KP Center for Health Research's *ROI Calculator* for the Texas population and tobacco control program components. For a one-year program, we estimated total program costs and net ROI estimates per smoking quitter, per capita, and per adult health plan member per month (PMPM). For youth, we calculated future savings separately from program costs.

Methods

We used information from the Texas population and Pilot Initiative program to adjust the *ROI Calculator*. The *ROI Calculator* is a probabilistic cohort model developed to estimate the net present value of each of four 5 As (ask about smoking, advise smokers to quit, assess readiness to quit, assist smokers in quitting, and arranging for follow-up) smoking cessation strategies delivered during routine care visits, as well as different combinations of telephone counseling and NRT. The model estimates the incremental net financial returns for each intervention compared to a 2 As existing practice condition.

The ROI Calculator: CHR researchers used electronic medical record data for 186,000 adult Kaiser Permanente Northwest (KPNW) enrollees over a five-year period (1997–2002) to estimate annual population quit rates, the effect of smoking-related disease diagnoses on decisions to quit, and annual health plan disenrollment, by sex, age group, and smoking intensity. KPNW is a comprehensive prepaid HMO serving 440,000 members in the Portland, OR metropolitan area. Diagnostic data for all encounters (i.e., outpatient, inpatient, emergency department, out-of-plan care, and pharmacy) came from electronic medical records (EMRs). We captured all documented disease diagnoses (excluding rule-outs) where smoking is a primary risk factor (USDHHS, 2004), including lung and other cancers, cardiovascular disease, chronic obstructive pulmonary disease, and pneumonia. Current and former smoking, and packs smoked per day, was obtained from the EMR. Smoking status is documented for over 90% of KPNW members and assessed regularly. At the end of each year, annual medical care expenditures were calculated for each group of continuing smokers, new quitters, existing former smokers, and never smokers. Annual productivity losses from smoking-related absenteeism and smoke breaks were estimated.

Using published intervention reach, efficacy, and costs, CHR staff then calculated the cumulative annual ROI of each cessation strategy over a five-year period, in terms of net medical care and productivity savings compared to existing practice. The results suggested that health care system-level smoking cessation interventions could save money in the near term. Spending $0.18–$0.79 per health plan member per month (PMPM) in a one-year program generated a net ROI of $1–$2 PMPM after five years

compared to existing practice, depending on intervention reach, effectiveness, and cost. Returns to the health plan were positive after two years, while returns to employers were positive after one year. This was the first evidence that smoking cessation provides a near-term positive return on investment for health plans. A complete description of the model and the results is available at www.businesscaseroi.org.

Texas Tobacco Prevention Initiative Pilot: We adapted the cohort model to fit the Texas population data and the effectiveness and cost of the Pilot Initiative program (Aims 1 and 4). The estimated population of the Pilot Area (Houston and Southeast Texas) was approximately 4.1 million in 2003, or about 20% of the Texas population. About 83% of the population was adults ages 18 years and over. In 2003, total tobacco control program spending was $2.71 per capita, which represented actual program costs for the Pilot area. We estimated total program costs for the statewide program assuming $3 per capita spending.

We used the survey data showing a net 2.6% decrease in adult smoking rates for the Pilot Area over three years. This equates to a .83% annual smoking rate decline. In the Pilot Area, a .83% annual decline translated to nearly 30,000 fewer smokers in 2003 compared to having no tobacco control spending for that year. For the State as a whole, we estimated that implementing the Pilot Initiative would have reduced the number of smokers during 2003 by about 163,000.

Using the number of new quitters in the Pilot Area and statewide, we calculated the cumulative annual medical care and productivity savings over five years. We estimated savings by comparing annual medical care and productivity estimates for the population with and without the Pilot Initiative program. For our population-level analysis, we assumed all adults were covered by health insurance. About 25% of Texans lack health insurance coverage. We did not adjust the analysis for the uninsured because serious smoking-related disease incidence are typically treated regardless of insurance status, and the older age groups most likely to need care related to smoking are more likely to be insured than younger ages. Because we tested the impact of cessation for the entire population, including all health plans, we assumed no health plan disenrollment over the study period except for annual mortality.

For the Pilot Initiative impact, we used the total population estimate to calculate ROI results PMPM. For the existing practice condition, we used the ROI Calculator assumptions that 55%–78% (depending on age and sex) would have had a routine care visit and that 60% of smokers with a visit would have received brief physician advice to quit. Advice delivery costs included physician labor and overhead. We valued clinical time and overhead using mean net income for primary care physicians (Wassenaar and Thran, 2003) overhead cost per in-office hour from Peden and Baker (2002).

We adjusted KPNW medical expenditure data to account for regional differences in medical costs and insurance plans to estimate medical expenditures for Texas smokers. Based on data from the Medical Expenditures Panel Survey, we multiplied all medical expenditures by 1.15 to adjust West Coast figures into South region costs (Agency for

Healthcare Research and Quality, 2003). We then multiplied costs again by 1.06 to reflect cost differences between HMOs (such as KPNW) and all health plan types as a whole (including PPOs, fee-for service, and mixed plans) (Cherry et al., 2003).

We used productivity data from Warner et al. (1996) and private sector earnings data for Texas (Bureau of Labor, 2006) to estimate employer's incremental annual productivity savings for the Texas Pilot Initiative compared to existing practice. Warner estimated men and women smokers had 3.9 and 2.1 extra absentee days per year, respectively, and spent an extra five minutes per workday on smoke breaks. Warner assumed quitting would reduce absenteeism by a compounding rate of 25% per year for men and 45% for women. We further assumed that quitting would reduce smoke-break time by half in the first year. We did not include potential productivity costs while at work, smoking-related disability, or employee replacement costs. We also included the cost to employers associated with employee time spent receiving cessation services.

Incremental ROI: We calculated the incremental net return on investment (ROI) per quit, per capita, and per adult health plan member per month (PMPM) for the State of Texas, health plans, and employers from the Pilot Initiative compared to existing practice.

For the State of Texas, we assumed all state-paid components of the program were included in the $3 per capita cost estimate ($2.71 spent in the Pilot area). This includes the cost of a telephone quitline and free NRT. The quitline costs include $13 per intake call and $45 per person receiving cessation counseling. In 2005 (the most recent data available), about 7,600 smokers called the quitline and nearly 4,400 received counseling. An evaluation of the program indicated that the quitline doubled quit rates compared to a control group that only received self-help materials (10.35% vs. 5.94%, assuming non-respondents were smoking). Adding a free eight-week course of NRT has been shown to nearly double quit rates (Fiore at al., 2000). The cost to the state of the full eight-week regimen was $101 per participant in 2005.

We assumed all intervention costs were paid by the state. For health plans, we estimated the differences in year-1 program costs (assuming no costs for the quitline service) and the present value of annual medical care expenditures.
We estimated that health plans spend about $6 per visit when brief advice to quit is provided. We assumed the Pilot Initiative had no impact on health plan cessation activities. Thus, these costs dropped out of the incremental analysis. In the analysis, the intervention costs to employers were zero.

For employers, we compared differences in lost work time for the added time receiving physician counseling (existing practice), the cost of NRT, and the present value of annual smoking-related lost work time for smokers and quitters. We valued lost work time using median hourly wages and salaries for all employees, with 30% added for fringe benefits.

The annual cost data presented below reflect the present value of future costs, in 2003 dollars. Future costs were discounted using the cost-of-capital rate for the medical services sector of 7.63% (Damodaran, 2004).

Adding health plan-supported provider counseling: To address Aim 2, we estimated the additional number of new quitters in the Pilot population if supplemental health plan-supported brief physician counseling was provided at routine health care visits. We assumed the counseling was based on the 5 As model, where providers ask patients about smoking, advise smokers to quit, assess readiness to quit, assist smokers in the quit attempt, and arrange follow-up to check on progress with quitting. In this analysis, we assumed providers spent five minutes providing the first 3 As and connected interested smokers to the state quitline. We assumed only insured smokers would be eligible to receive physician counseling, so we conservatively reduced the overall reach of the counseling by 25% (the uninsured rate in Texas). We assumed that receiving the additional counseling would increase the quit rate for affected smokers by 60%, based on a 1.6 odds ratio for brief provider counseling compared to no counseling (Fiore et al., 2000).

The costs of provider counseling were added to the total intervention costs for the Pilot Initiative. The costs included increased physician time and overhead for counseling, and a $20 provider reimbursement for each smoker with a visit who received the 3 As. This reimbursement strategy was shown to be an effective incentive for achieving provider adherence to a tobacco cessation protocol (Amundson et al., 2003). We also increased the costs to employers for work time lost for smokers receiving the additional provider counseling (assuming health care visits occurred during working hours).

Impact of Youth Smoking Reductions: A substantial proportion of the Pilot Initiative programming was targeted to reducing youth smoking. The above analyses focused on adult cessation, and did not attempt to allocate the $2.71 per capita comprehensive program spending in 2003 for separate youth and adult programs.

In the Pilot area in 2003, we estimated there were about 127,400 males and 122,000 females ages 14-17 years, based on population percentages for 14-17 year olds in the state. Smoking prevalence data from 1999 to 2001 suggest that the Tobacco Prevention Pilot Initiative reduced smoking among high school age youth by an additional 5% compared to reductions in statewide smoking prevalence over the same period. This estimate is based on data indicating youth smoking rates fell 25% statewide between 1999 and 2001 (Texas Youth Risk Behavior Survey) and declined by 30% in the Pilot area over the same period (Report to the 78th Legislature). The statewide decline of 25% includes the Pilot area, so the difference is conservative. Assuming 18.8% of high school age youth smoked cigarettes in 2003, we estimated that there were 2,427 fewer smokers (1,529 males and 898 females) in the Pilot area resulting from one year of intervention from the Pilot Initiative.

For the 2,427 averted smokers, we estimated the present value (2003 dollars) of future medical care and productivity savings over a five-year period from 2006-2010. This

provided time for youth averted smokers to age into the first adult smoker category within the ROI Calculator. All costs were discounted using a cost-of-capital rate of 7.63%. Medical cost savings were calculated as the difference between current light smokers (<1 pack/day) and never smokers for individuals age 18-34 and without any smoking-related disease diagnoses. This assumed the averted smokers would have progressed into adult light smokers, and over five years would have remained smoking and not had a smoking-related disease diagnosis. We report only the cost differences between light smokers and never smokers, not the total costs for each group, which may be somewhat higher for an 18-34 year age group than for an 18-24 year age group. We also reduced medical care expenditures by 39%, based on 2001 data showing only 61% of 18-24 year olds had health insurance (Texas Health and Human Services Commission, 2003).

Productivity savings were calculated assuming total lost days per year for smokers were 6.5 for males and 4.7 for females, which were averted by preventing smoking uptake and increasing early quitting. The annual days lost included 3.9 absentee days for male smokers and 2.1 absentee days for female smokers, and five minutes per day in excess smoke breaks. We assumed daily per capita earnings for 18-24 year olds was $54.

Results

For the ROI modeling, we used the total population of the Pilot Initiative population, which was about 4.1 million (of which about 3.4 million were adults), and assumed a total population of about 22.8 million for Texas (about 18.9 million adults) (Table 1). We estimated the number of current adult smokers to be about 915,000 in the Pilot population and about 4.3 million in Texas at the start of 2003. Assuming a .83% net annual reduction in adult smoking rates from the Pilot Initiative, we estimated there were 29,643 fewer adult smokers in the Pilot population as a result of one year of implementation of the comprehensive program. Assuming the Pilot Initiative was implemented statewide, we estimated there would be 163,662 fewer adult smokers in 2003 compared to no program. Given annual program spending of $2.71 per capita for the Pilot area, we estimated that the full program would cost about $11.3 million in the Pilot population and $3 per capita or $68.3 million statewide. The total cost per quit was $340 in the Pilot Area and $418 statewide. We assumed the Pilot Initiative program did not affect health plan spending on clinical tobacco control efforts.

Table 1. Effectiveness and costs from the Texas Tobacco Prevention Pilot Initiative for the Pilot and Texas populations

	Pilot Initiative population	Texas population
Population (est.)	4,156,575	22,775,044
Adult smokers in 2003	695,766	4,303,468
Estimated number of new quitters in 2003	29,643	163,662
Total program costs*	$11,264,318	$68,325,132
Total cost per quit	$380	$418

*Based on $2.71 per capita in the Pilot area and $3.00 per capita statewide.

Cost Savings: In Table 2, we present the estimated savings in medical care expenditures and productivity over five years from a one-year decline in adult smoking generated by the Pilot Initiative. Figures are presented for the Pilot Initiative and Texas populations (Table 2). The estimates reflect the additional savings compared to no comprehensive program, where smokers rely on receiving brief physician advice to quit provided at routine care. The data have been discounted to present value, 2003 dollars.

Pilot Area Population. We estimated that a one-year reduction in adult smoking in the Pilot Initiative population saved a total of $252.2 million in future medical care expenditures and productivity over five years. Medical care savings were $186.0 million by the end of Year 5, while productivity savings were $66.1 million. Medical care savings were zero in Year 1 because of our assumption that quitting would not impact health care costs in the first year. Medical care savings were positive in Year 2 ($66.9 million) and in each subsequent year as the incidence of smoking-related diseases decline among program-induced quitters.

Texas Population. If the Pilot Initiative program was implemented statewide, we estimate that a one-year reduction in adult smoking would save nearly $1.4 billion in medical care and productivity over five years. This includes cumulative medical care savings of $1.0 billion over five years, and productivity savings of $365.1 million.

Table 2. Cumulative annual medical care and productivity savings for the Texas Tobacco Prevention Pilot Initiative* (in millions)

	Total savings	Medical care savings	Productivity savings
Pilot Initiative population			
Year 1	$ 9.3	$ 0.0	$ 9.3
Year 2	$ 92.2	$ 66.9	$ 25.4
Year 3	$ 153.3	$ 112.8	$ 40.5
Year 4	$ 209.0	$ 155.2	$ 53.8
Year 5	$ 252.2	$ 186.0	$ 66.1
Texas population			
Year 1	$ 51.2	$ 0.0	$ 51.2
Year 2	$ 505.4	$ 365.4	$ 140.0
Year 3	$ 840.6	$ 617.1	$ 223.6
Year 4	$ 1,146.9	$ 849.7	$ 297.2
Year 5	$ 1,384.3	$ 1,019.2	$ 365.1

*Spending $2.71 per capita for a comprehensive tobacco control program compared to brief physician advice delivered at routine health care visits. Reported in discounted 2003 dollars.

Return on Investment: The cumulative annual return on investment from the $2.71 per capita Pilot Initiative is presented for the Pilot population (Table 3). The net ROI per quit, per capita, and per adult health plan member per month (PMPM) are presented for each population.

For the Pilot population (Table 3), we estimated that spending $2.71 per capita in 2003 for the comprehensive tobacco control program resulted in an overall net ROI per quit of $8,127 after five years. For program quitters in Year 1, the program costs resulted in a first year net cost of $67 per quit. By Year 2, the program had saved $2,731 per quit. Net savings increased each year through Year 5. For health plans, the net ROI per quit was $2,255 after two years and $6,275 after five years. The health plan results are averaged over all plans. Results may be somewhat lower for individual health plans because of plan dissenrollment. For employers, the ROI per quit was $313 in Year 1, and grew to $2,231 after five years.

The overall net ROI per capita and ROI PMPM were also positive by year two. After five years, cumulative ROI per capita was $57.96 and ROI PMPM was $5.82. After five years, ROI per capita was $44.75 for health plans and $15.91 for employers. ROI PMPM was $4.50 for health plans and $1.60 for employers.

Including additional health plan supported physician counseling to the Pilot Initiative (Table 4) would have increased the number of new quitters in the Pilot population by about 2,278 (a 7.7% increase). The increase in quits reflects the modest population impact of adding five minutes of provider counseling for insured smokers, with a focus on facilitating connections to the Quitline.

Table 3. Cumulative return in investment (ROI) from the $2.71 per capita Texas Tobacco Prevention Pilot Initiative for the Pilot Population

	Total ROI*	Health plans	Employers
ROI per quit			
Year 1	$ (67)	$ 0.00	$ 313
Year 2	$ 2,731	$ 2,255	$ 856
Year 3	$ 4,791	$ 3,805	$ 1,366
Year 4	$ 6,671	$ 5,235	$ 1,816
Year 5	$ 8,127	$ 6,275	$ 2,231
ROI per capita			
Year 1	$ (0.48)	$ 0.00	$ 2.23
Year 2	$ 19.48	$ 16.08	$ 6.10
Year 3	$ 34.17	$ 27.13	$ 9.74
Year 4	$ 47.57	$ 37.33	$ 12.95
Year 5	$ 57.96	$ 44.75	$ 15.91
ROI PMPM†			
Year 1	$ (0.05)	$ 0.00	$ 0.22
Year 2	$ 1.96	$ 1.62	$ 0.61
Year 3	$ 3.47	$ 2.73	$ 0.98
Year 4	$ 4.78	$ 3.75	$ 1.30
Year 5	$ 5.82	$ 4.50	$ 1.60

ROI estimates reflect added costs and added benefits compared to no Pilot Program.
*Includes all employer, health plan, and Pilot Initiative costs and benefits.
†PMPM = per (adult health plan) member per month.
All costs are in discounted 2003 dollars.

Additional health plan participation would have increased the overall cost per quit to $555 from $340. Intervention delivery costs increase because of the additional time away from work smokers spend receiving counseling and health plan compensation for providers who received $20 for each smoker receiving advice to quit during the year. The financial effects of adding additional provider counseling to the Pilot Initiative would have been a small decrease in the net ROI estimates for Texas and health plans, but a small increase for employers. Compared to the results in Table 3, health plans would again have had a negative ROI in Year 1: $(164) per quit, $(1.26) per capita, and $(0.13) PMPM, but also would see a positive ROI by Year 2. Employers would have benefited (ROI per capita and PMPM) from increased quits, though the average cost per quit increases slightly. The cost per quit increases because the cost of added time spent

receiving provider counseling is proportionally higher than the additional quits from these visits.

Table 4. Cumulative ROI from the $2.71 per capita Texas Tobacco Prevention Pilot Initiative for the Pilot Population, With Health Plan Supported Physician Counseling

	Total ROI*	Health plans	Employers
ROI per quit			
Year 1	$ (259)	$ (164)	$ 311
Year 2	$ 2,326	$ 1,880	$ 852
Year 3	$ 4,276	$ 3,320	$ 1,362
Year 4	$ 6,071	$ 4,667	$ 1,811
Year 5	$ 7,480	$ 5,662	$ 2,295
ROI per capita			
Year 1	$ (1.99)	$ (1.26)	$ 2.39
Year 2	$ 17.86	$ 14.44	$ 6.54
Year 3	$ 32.83	$ 25.49	$ 10.46
Year 4	$ 46.62	$ 35.84	$ 13.90
Year 5	$ 57.44	$ 43.48	$ 17.08
ROI PMPM†			
Year 1	$ (0.20)	$ (0.13)	$ 0.24
Year 2	$ 1.80	$ 1.45	$ 0.66
Year 3	$ 3.30	$ 2.56	$ 1.05
Year 4	$ 4.69	$ 3.60	$ 1.40
Year 5	$ 5.77	$ 4.37	$ 1.72

ROI estimates reflect added costs and added benefits compared to no Pilot Program.
*Includes all employer, health plan, and Pilot Initiative costs and benefits.
†PMPM = per (adult health plan) member per month.
All costs are in discounted 2003 dollars.

Future (Five Year) Savings from Youth Prevention for the Pilot area is presented in Table 5. We estimated that the Pilot Initiative saved $3.1 million in future (five year) health care expenditures and productivity losses, or $2,311 per smoker and $12.37 per capita for the Pilot area (discounted 2003 dollars). Most of the savings ($2.9 million) are associated with averted smoking-related productivity costs. Future savings for males are $2.4 million, or $1,599 per averted smoker and $19.19 per capita. For females, total savings are $639,600, or $712 per averted smoker and $5.24 per capita. The results reflect data showing that among females aged 18-34 years and with no smoking-related disease diagnosis, current light smokers have lower annual health care costs than never smokers. In addition, readers should note that these estimates only reflect savings during

2006-2010. Lifetime savings will be substantially higher compared to the expected costs had these teens become adult smokers.

Table 5. Future Savings for years 2006-2010 from the Texas Tobacco Prevention Pilot Initiative for the Pilot Area High School Population*

	Future Savings		
	Total	**Per Averted Smoker**	**Per Capita**
Males			
Health care	$ 437,995	$ 286	$ 3.44
Productivity	$ 2,006,307	$ 1,312	$ 15.75
Total	**$ 2,444,303**	**$ 1,599**	**$ 19.19**
Females			
Health care	$ (212,422)	$ (237)	$ (1.74)
Productivity	$ 852,022	$ 949	$ 6.98
Total	**$ 639,600**	**$ 712**	**$ 5.24**
Both sexes			
Health care	$ 225,573	$ 50	$ 0.90
Productivity	$ 2,858,329	$ 2,261	$ 11.46
Total	**$ 3,083,902**	**$ 2,311**	**$ 12.37**

*Savings over five years from 2006-2010 and discounted to 2003 at a 7.63% cost of capital rate. Sums may not equal totals because of rounding.

ROI for the Texas population (Table 6), the ROI estimates for a statewide comprehensive program are similar to the results for the Pilot Initiative population presented in Table 3. The results show that expanding the Pilot program to the entire Texas population would be cost saving by the second year over all additional quitters during a single year of the program. Cumulative ROI to the state is estimated to be $8,041 after five years, $6,227 per quit for health plans, and $2,231 per quit for employers. Per capita net savings are $57.78 for the state, $44.75 for health plans, and $16.03 for employers.

Table 6. Cumulative return on investment (ROI) from a $3 per capita Texas Tobacco Prevention Pilot Initiative for the Texas Population

	Texas Total*	Health plans	Employers
ROI per quit			
Year 1	$ (105)	$ 0.00	$ 336
Year 2	$ 2,671	$ 2,419	$ 918
Year 3	$ 4,719	$ 4,084	$ 1,466
Year 4	$ 6,590	$ 5,624	$ 1,948
Year 5	$ 8,041	$ 6,746	$ 2,394
ROI per capita			
Year 1	$ (0.75)	$ 0.00	$ 2.41
Year 2	$ 19.19	$ 17.38	$ 6.60
Year 3	$ 33.91	$ 29.35	$ 10.53
Year 4	$ 47.36	$ 40.41	$ 14.00
Year 5	$ 57.78	$ 48.47	$ 17.20
ROI PMPM†			
Year 1	$ (0.08)	$ 0.00	$ 0.24
Year 2	$ 1.93	$ 1.75	$ 0.66
Year 3	$ 3.41	$ 2.95	$ 1.06
Year 4	$ 4.36	$ 4.06	$ 1.41
Year 5	$ 5.81	$ 4.87	$ 1.73

ROI estimates reflect added costs and added benefits compared to no Pilot Program.
*Includes all employer, health plan, and Pilot Initiative costs and benefits.
†PMPM = per (adult health plan) member per month.
All costs are in discounted 2003 dollars.

Conclusion

The results of this analysis suggest that spending $3 per capita for a comprehensive tobacco control program saves money in the near term. The population impact of the Pilot Initiative, while seemingly small, generated tremendous savings from reduced medical care expenditures and productivity losses. The one-year investment of $11.3 million ($2.71 per capita) in 2003 for the Pilot area population generated five-year savings of over $252 million, or about $57 per capita. Statewide, single year per capita spending of $3 ($68 million total) are projected to generate a net return for the state of $1.4 billion, or over $57 per capita in five years. Health plans and employers did not bear any costs for the Pilot Initiative program. The number of quitters would have been increased by 7.7% over the Pilot Initiative alone if additional health plan-sponsored physician counseling was included as part of routine health care visits for insured smokers. The added counseling would have resulted in only small increases in costs for health plans and employers. The ROI estimates after five years were slightly smaller for Texas and health plans, and slightly larger for employers. For the Pilot area, we also

estimated the future health care and productivity savings from reductions in youth smoking. We found that for the five-year period from 2006 to 2010, the Pilot Initiative will save as much as $3.0 million from reductions in smoking initiation and increased cessation among high school youth.

Study limitations

This study has several limitations. First, the study depends on data contained in the ROI Calculator, which was derived from KPNW electronic medical records. While we adjusted KPNW expenditures for Texas residents, patterns of care may differ in ways we could not capture. In the KPNW data, smoking status was known for over 90% of the population and was regularly assessed. The quality of the smoking data, however, depend on clinicians asking for and recording the data, and smokers coming in for regular visits and responding truthfully to the clinician. While our EMR data on smoking is limited, no other health plan has the ability to conduct time-series analyses of a population of smokers. Second, the ROI Calculator assumes that program quitters remaining abstinent and free from smoking-related-disease had future expenditures equivalent to continuing smokers. The expenditure trajectory of actual program quitters may be different.

Third, we did not have data quantifying the impact of the Pilot program on actual cessation service delivery among individual health care providers. Although provider counseling costs are small, accounting for their efforts in the main analysis would likely reduce slightly the estimated net savings from the program. Fourth, we did not assess quality of life benefits or the long-term financial impact of quitting or the improved quality of life among quitters. Fifth, we assumed all adults were covered by health insurance. About 25% of the Texas population is uninsured. We do not expect the assumption to have substantially affected medical care costs, since individuals with serious disease diagnoses likely receive publicly funded or uncompensated care. Finally, we did not include productivity costs to employers of smoking-related long-term disabilities, and replacement costs for new employees. We also did not include lifetime productivity costs associated with premature death (CDC, 2002). Thus, we believe the estimates presented in this report are conservative.

Despite these limitations, the data in this report show that the Texas Tobacco Prevention Initiative provides substantial net financial savings to Texas employers, health plans, and the State. Investing in comprehensive tobacco control efforts is overall a highly cost-effective use of resources. Texas health plans and employers will benefit from supporting state tobacco control efforts and by promoting increased access to cessation services.

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Appendix C

DSHS Tobacco Prevention and Control
Strategic Plan for 2003-2008

DSHS (legacy agency TDH) Tobacco Prevention and Control Strategic Plan for 2003-2008

"Four million unnecessary deaths per year, 11,000 every day. It is rare–if not impossible–to find examples in history that match tobacco's programmed trail of death and destruction. I use the word programmed carefully. A cigarette is the only consumer product which when used as directed kills its consumer."

Dr. Gro Harlem Brundtland, Director-General
World Health Organization

Tobacco Use Impacts All Texans

Although only 22 percent of adult Texans are smokers, their tobacco use places an enormous toll on the state, killing more than 24,000 Texans annually and costing in excess of $10 billion in direct medical costs and lost productivity.[6] Tobacco use is the single largest cause of preventable death and disease in Texas, contributing to over $4.6 billion in direct healthcare costs.[7] In 1998, 15 percent of all Medicaid costs in Texas were spent on treating smoking-related illnesses and diseases.[8]

Youth Pay the Price

Unfortunately, it is today's youth who become tomorrow's statistics. Almost 60,000 children in Texas become daily smokers each year and 20,000 of them will ultimately die from smoking. If current tobacco use rate trends continue, approximately 486,000 teens alive today in Texas will die from tobacco-related causes.[9]

Nonsmokers Impacted

Exposure to secondhand smoke is a substantial health threat in Texas. For every 8 smokers who die, one nonsmoker is killed by secondhand smoke.[10] It is estimated that there are between 2,500 and 4,500 adults, children and babies who die each year from others' smoking in Texas. Nationwide, secondhand smoke contributes to more than 3,000 deaths from lung cancer and as many as 62,000 from heart disease. Secondhand smoke contributes to a myriad of other health problems and is especially detrimental to children causing ear infections, asthma and other respiratory problems, and increasing the

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[7] Texas Department of Health. Bureau of Chronic Disease and Tobacco Prevention. State Attributable Morbidity, Mortality and Economic Costs.

[8] Centers for Disease Control and Prevention. "Tobacco Control State Highlights 2002: Impact and Opportunity", Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2002. http://www.cdc.gov/tobacco/statehi_2002.htm Accessed August 13, 2002.

[9] Campaign for Tobacco Free Kids. "State Tobacco Settlement: Show Us the Money: The Toll of Tobacco in Texas". Washington, D.C., January 2002. http://tobaccofreekids.org/reports/settlement/ Accessed August 12, 2002.

[10] Glanta, S.A. & Parmley, W., "Passive Smoking and Heart Disease: Epidemiology, Physiology and Biochemistry," Circulation, 1991; 83(1): 1-12; and Taylor, A., Johnson, D. & Kazemia H., "Environmental Tobacco Smoke and Cardiovascular Disease," Circulation, 1992; 86:699-702.

risk for Sudden Infant Death Syndrome.[11] Despite the documented health effects and risks, almost a million youth in Texas are exposed to secondhand smoke in their homes and in public places such as restaurants. Even though the majority of adult Texans are nonsmokers almost one third are exposed to secondhand smoke in their worksites or homes.[12] Those in occupations with high levels of exposure to tobacco smoke, such as restaurant and bar workers and nightclub musicians, experience disproportionate effects. Secondhand smoke exposure in restaurants is three to five times higher than exposure in typical workplaces. Waitstaff experience up to a 90 percent increased risk of contracting lung cancer over the general population. One study showed that waitresses had the highest mortality rate of any female occupational group including four times the expected lung cancer mortality rate and two and a half times the expected heart disease mortality rate.[13]

Effective Solutions

While these statistics are alarming, they are not insurmountable. Proven solutions do exist and have been employed successfully by other states. In 1999 the Centers for Disease Control and Prevention (CDC) published *Best Practices for Comprehensive Tobacco Control Programs*.[14] This guide summarizes the most effective evidence-based tobacco control strategies and makes recommendations for states regarding program implementation and funding. States that followed best practices, most notably California and Massachusetts, experienced rapid declines in tobacco use among youth and adults and exposure to secondhand smoke. Furthermore, these states have found that comprehensive tobacco control programs are cost effective, saving up to three dollars for every dollar spent.[15]

The Strategic Planning Process

In October 1998, The Texas Inter-Agency Tobacco Task Force developed a plan to utilize tobacco settlement funds to effectively address tobacco prevention and control in Texas. The Task Force plan was based on evidence-based practices, and identified the following essential elements for a comprehensive tobacco control initiative:

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[11] Centers for Disease Control and Prevention. "Exposure to Environmental Tobacco Smoke and Cotinine Levels-Fact Sheet". http://www.cdc.gov/tobacco/research_data/environmental/factsheet_ets.htm Accessed August 12, 2002.

[12] Centers for Disease Control and Prevention. "Tobacco Control State Highlights 2002: Impact and Opportunity". Atlanta, Ga.: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2002.

[13] Siegel, M.: Involuntary smoking in the restaurant workplace-a review of employee exposure and health effects. Journal of the American Medical Association. 270(4):490-493 (1993).

[14] Centers for Disease Control and Prevention. "Best Practices for Comprehensive Tobacco Control Programs – August 1999". Atlanta, Ga.: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2002. http://www.cdc.gov/tobacco/bestprac.htm

[15] American Legacy Foundation. "Saving Lives, Saving Money. Why States Should Invest in a Tobacco Free Future". Washington, D.C.: American Legacy Foundation, 2002. http://www.americanlegacy.org/content/PDF?278055.pdf Accessed August 12, 2002.

- Community and Local Coalitions and Programs Including School-Based Youth/Parent Programs
- Public Awareness Campaign and Media Resource Center
- Tobacco Use Cessation and Nicotine Addiction Treatment
- Efforts Targeted to Diverse/Special Populations Such as Minorities, Persons in Rural Areas, and Youth in Alternative Settings
- Surveillance, Evaluation, and Research
- Enforcement of Tobacco Control Policies and Laws
- Statewide Program Coordination Including Training and Assistance

As a follow up to the original Tobacco Task Force plan, in June 2002 the Texas Department of Health (TDH) convened a team of tobacco control experts from local, regional and state levels to develop a five-year, TDH Strategic Plan for Tobacco Use Prevention and Control. The goal of the plan is to develop a roadmap for logically and systematically expanding the "Texas Tobacco Prevention Initiative" statewide.

The following TDH Strategic Plan is the first step in a series of activities designed to create an ongoing, data-based program development cycle at the state, regional and local levels.

Highlights of the Plan

Vision: A Tobacco-Free Texas

Goal 1: Prevent Youth Tobacco Use

- **Strategy 1.1:** Educate youth and adults who influence youth about tobacco prevention and control issues:
    - Facilitate evidence-based, culturally competent and age/gender appropriate school/community-based education with special emphasis on diverse and special populations.
    - Educate the public and community leaders about the effects of tobacco price increase on reductions in youth initiation and overall public health impact.
    - Change peer norms toward no tobacco use and develop resistance skills.
    - Provide technical assistance to give evidence-based tobacco control programs and strategies to communities.

- **Strategy 1.2:** Increase adherence to federal, state and local youth tobacco sales, product placement and possession laws.

- **Strategy 1.3:** Identify and recruit youth organizations, including non-school based, to promote tobacco prevention activities.

Measures of Success:

- Decline in the percentage of middle school students (grades 6 - 8) who report using any tobacco product at least one day in the past 30 days.
- Decline in the percentage of high school students (grades 9 - 12) who report using any tobacco product at least one day in the past 30 days.
- Increase percentage of youth (grades 6 - 12) who report never having used tobacco.

Goal 2: Increase Cessation Among Youth and Adults

- **Strategy 2.1:** Educate youth and adults to quit using tobacco products.

- **Strategy 2.2:** Increase the number of health professionals who assess and counsel youth and adults for cessation.

- **Strategy 2.3:** Increase awareness, availability and access to cessation resources, including the American Cancer Society (ACS) Quitline, for adults and youth.

- **Strategy 2.4:** Educate the public and community leaders on evidence-based tobacco control programs and strategies, such as the effect of tobacco price increase on reductions in tobacco use and overall public health impact.

- **Strategy 2.5:** Increase social support for youth cessation.

- **Strategy 2.6:** Identify and recruit youth organizations, including non-school based, to promote tobacco cessation activities.

Measures of Success:

- Decline in the percentage of youth (grades 6 - 12) who report using any tobacco product at least one day in the past 30 days.
- Increase in the percentage of youth (grades 6 – 12) who ever smoked at least one cigarette every day for 30 days but did not smoke cigarettes during the past 30 days.
- Decline in the percentage of adults who are current users of any tobacco product.
- Increase in the percentage of adult current smokers who have seriously tried to quit smoking in the past 12 months.

Goal 3: Eliminate Exposure to Secondhand Smoke

- **Strategy 3.1:** Increase enforcement of federal, state, and local secondhand smoke laws.

- **Strategy 3.2:** Educate the public, including parents, business owners and community leaders about the harmful effects of secondhand smoke and the laws prohibiting or restricting smoking.

- **Strategy 3.3:** Provide technical assistance to give evidence-based programs and strategies to communities.

- **Strategy 3.4:** Educate health professionals to assess and counsel situations where secondhand smoke may need to be eliminated.

Measures of Success:

- Decline in the percentage of youth (grades 6 – 12) who report they were in the same car or room with someone who was smoking cigarettes in the past 7 days.
- Decline in the percentage of adults who reported that they were exposed for at least one hour to secondhand smoke at work on a typical week.
- Increase in the proportion of worksites with formal smoking policies that prohibit smoking in any way.
- Increase in the percentage of the Texas population covered by municipal clean indoor air ordinances of moderate strength or better (as defined by University of Houston database).

Goal 4: Reduce Tobacco Use in Diverse and Special Populations to Eliminate Disparities

- **Strategy 4.1:** Educate youth and adults from diverse and special populations about tobacco prevention and control.

- **Strategy 4.2:** Increase awareness, availability and access to cessation resources, including the ACS Quitline, with an emphasis on diverse and special populations.

- **Strategy 4.3:** Educate diverse and special populations about the harmful effects of secondhand smoke and the laws prohibiting or restricting smoking.

- **Strategy 4.4:** Provide technical assistance to give evidenced-based programs and strategies to communities with diverse and special populations

- **Strategy 4.5:** Develop demographic and geographic profiles of diverse and special populations in Texas that experience the greatest adverse impact of tobacco, or in which the impact is increasing.

- **Strategy 4.6:** Collaborate with Texas colleges and universities to develop partnerships for comprehensive, campus-wide tobacco prevention and control.

Measures of Success:

- Decline in the percentage of youth (grades 6 – 12) from diverse and special populations who report using tobacco at least 1 day in the past 30 days.
- Decline in the percentage of adults from diverse and special populations who report current use of any tobacco product.

- Increase in the percentage of youth (grades 6 – 12) from diverse and special populations who ever smoked cigarettes daily but did not smoke cigarettes during the past 30 days.
- Increase in the percentage of adult recent quitters (report that they have last smoked regularly within the past 6 months) from diverse and special populations.
- Decline in the percentage of youth (grades 6 – 12) from diverse and special populations who report they were in the same car or room with someone who was smoking cigarettes in the past 7 days.
- Decline in the percentage of adults from diverse and special populations who reported that they were exposed for at least 1 hour to secondhand smoke at work on a typical week.
- Decline in the percentage of 18-24 year-olds who are current users of any tobacco product.

Goal 5: Develop and Sustain a Coordinated, Comprehensive Statewide Tobacco Prevention and Control Initiative

- **Strategy 5.1:** Identify current state, regional and local tobacco prevention and control initiatives and facilitate dissemination of information about state and local tobacco prevention and control activities, resources and opportunities among participating agencies and organizations.

- **Strategy 5.2:** Build state, regional and local capacity to plan, implement and evaluate effective tobacco prevention and control initiatives.

- **Strategy 5.3:** Track national and international state-of-the-art advances in tobacco prevention and control and facilitate timely access to new information, skills and resources.

- **Strategy 5.4:** Maintain an infrastructure for coordinating tobacco prevention and control activities in Texas.

- **Strategy 5.5:** Reduce the burden of tobacco-related chronic diseases on communities.

- **Strategy 5.6:** Develop a common, recognizable identity for statewide tobacco prevention and control initiatives.

- **Strategy 5.7**: Organize, monitor and evaluate implementation of the strategic plan and annual action plan and report on progress.

- **Strategy 5.8**: Enhance the research foundation for planning and implementation of tobacco prevention and control programs specific to Texas.

- **Strategy 5.9**: Communicate and collaborate with comprehensive substance abuse activities at the state, regional and local levels.

Measures of Success:

- Maintain an infrastructure for coordination of tobacco prevention and control activities in Texas.
- Maintain a visible identity for tobacco prevention and control in Texas.
- Enhance communication and information-sharing mechanisms for state and local tobacco prevention and control.
- Complete an annual evaluation and status report for the strategic plan and action plan.
- Plan and implement activities to build tobacco prevention and control capacity.