

**PUBLIC HEALTH IMPACTS OF THE  
PROPOSED POINT MOLATE CASINO**

**Contra Costa County  
Health Services**



**A B A R I S   G R O U P**

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Proposed Point Molate Casino

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## Introduction

The Abaris Group was asked by Contra Costa County to conduct an analysis of the expected public health impact of a new casino proposed for Point Molate in the City of Richmond by updating a previous study conducted in 2005 that assessed the level of problem and pathological gambling and the public health impact of a proposed casino expansion in San Pablo, California.

To update the study, The Abaris Group conducted a literature search, Internet research, reviewed several documents, and worked with Contra Costa Health Services staff regarding the expected health impact of the proposed Casino at Point Molate on the county (tobacco use, asthma, and traffic injuries).

As in 2005, much of the research available today on the public health impact of casinos focused on problem and pathological gambling and the negative impacts that result from these diseases. The research that was cited in the previous 2005 study is still valid. In fact, while there have been new studies on the impact of gambling on public health and other social behaviors, the most important study that pertains to this paper is a major prevalence study on problem and pathological gambling in California that was conducted in 2006.

## Problem and Pathological Gambling

### National Landscape

There are many perceived public-health issues surrounding casino gambling. Some of these include suicide, domestic violence, alcohol abuse, divorce, bankruptcy, drug abuse, criminal activity, and truancy. Over the last several years many studies have been conducted to better understand the effects of gambling. Problem and pathological gambling is one of the most studied gaming impact topics.

Gambling behavior lies on a continuum from occasional gambling, regular gambling (once or twice a week) through to problem and pathological gambling. Problem gambling usually refers to gambling that the gambler themselves find problematic, whereas pathological gambling usually refers to those who fulfill DSM (Diagnostic & Statistical Manual of Mental Disorders) criteria.<sup>1</sup>

There were three studies conducted in 1999 reviewing the issue of problem and pathological gambling: the National Gambling Impact Study Commission (NGISC)<sup>2</sup>, the National Research Council (NRC)<sup>3</sup>, and the National Opinion Research Center (NORC).<sup>4</sup> As of 2009, these studies are still the leading documents on problem and pathological gambling.

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<sup>1</sup> Griffiths, M, 2004. Betting your life on it. *BMJ* 2004;329:1055-6.

<sup>2</sup> National Gambling Impact Study Commission Report. Prepared for: President of the US, Congress, Governors and Tribal Leaders. June 1999. Prepared by: National Gambling Impact Study Commission.

<sup>3</sup> Pathological Gambling: A Critical Review. National Research Council, Committee on the Social and Economic Impact of Pathological Gambling. 1999.

<sup>4</sup> Gambling Impact and Behavior Study. Prepared for: National Gambling Impact Study Commission. April 1, 1999. Prepared by: NORC at the University of Chicago, Gemini Research, The Lewin Group and Christiansen/Cummings Associates.

While these three reports do not conclusively arrive at a definitive link between problem and pathological gambling and casinos, they all imply evidence of a strong connection between the two. The following excerpts are from the NGISC report.

- As the opportunities for gambling become more commonplace, it is likely that the number of people who will develop gambling problems will increase.<sup>5</sup>
- As with other addictive disorders, those who suffer from problem or pathological gambling engage in behavior that is destructive to themselves, their families, their work, and even their communities. This includes depression, abuse, divorce, homelessness, and suicide.<sup>6</sup>
- The NGISC was unanimous in its belief that the incidence of problem and pathological gambling is of sufficient severity to warrant immediate and enhanced attention on the part of public officials and others in the private and non-private sectors. The NGISC strongly urged those in positions of responsibility to move aggressively to reduce the occurrence of this malady in the general population and to alleviate the suffering of those afflicted.<sup>7</sup>

The following are excerpts from the NRC and NORC reports pertaining to problem and pathological gambling:<sup>8</sup>

- NRC concluded that pathological gambling is found proportionately more often among the young, less educated, and poor.
- The NRC and NORC studies found that men are more likely to be pathological, problem, or at-risk gamblers than women.
- Both studies found that pathological, problem, and at-risk gambling was proportionally higher among African Americans than other ethnic groups.
- NORC reported that pathological gambling occurs less frequently among individuals over age 65, among college graduates, and in households with incomes over \$100,000 per year.
- Researchers have discovered high levels of other addictive behavior among problem and pathological gamblers, especially regarding drugs and alcohol. For example, estimates of the incidence of substance abuse among pathological gamblers ranges from 25 to 63 percent. Individuals admitted to chemical dependence treatment programs are three to six times more likely to be problem gamblers than are people from the general population.
- In its survey, NORC found that “respondents reporting at-risk, problem, and pathological gambling are more likely than low-risk or non-gamblers to have ever been alcohol or drug-dependent and to have used illicit drugs in the past 12 months.”

There have been studies that show a positive correlation between casinos in a community and an increase in the number of persons suffering from problem and pathological gambling. Two of these include studies published by John Welte, Ph.D. in the *Journal of Gambling Studies* and a

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<sup>5</sup> National Gambling Impact Study Commission Report. Prepared for: President of the US, Congress, Governors and Tribal Leaders. June 1999. Prepared by: National Gambling Impact Study Commission, p. 4-19.

<sup>6</sup> Ibid., p. 7.18

<sup>7</sup> Ibid., p. 4.3

<sup>8</sup> National Gambling Impact Study Commission Report. Prepared for: President of the US, Congress, Governors and Tribal Leaders. June 1999. Prepared by: National Gambling Impact Study Commission, p. 4-11.

study published in October 2004 for the Responsibility in Gambling Trust (RIGT) called *A Review of Research on Aspects of Problem Gambling*.

Dr. Welte's 2002 study showed that the prevalence of problem gambling declined significantly as socioeconomic status increased.<sup>9</sup> His study also revealed that African Americans, Hispanics and Asians were more likely to be problem gamblers than whites.<sup>10</sup> His 2004 study examined the effect of community disadvantages and gambling availability on gambling participation and pathology. The significant finding of this study is that the presence of a casino within ten miles of a respondent's home was positively related to problem and pathological gambling. Specifically, respondents to the survey who lived within ten miles of a casino had double the rate of problem and pathological gambling compared to those who did not (7.2 percent and 3.1 percent, respectively).<sup>11</sup>

The 2004 study conducted by the RIGT found "...it can be anticipated that legislation and policies that significantly enhance access to electronic gaming machines, casino table games and other continuous gambling forms will generate increases in problem gambling and related flow-on costs to families and communities. Risk profiles are also likely to change, with disproportionate increases among women and some other population sectors including ethnic and new migrant minorities. Problem gambling may also move 'up market', becoming somewhat more evenly distributed throughout socioeconomic strata and age groups."<sup>14</sup>

While the NORC found that pathological gambling occurs less frequently among persons over age 65, study published in 2005 showed that nearly 11 percent of a study's participating senior citizens fit the researchers' criteria of "at-risk" gamblers – reporting that they placed more than \$100 on a bet, gambled more than they could afford to lose, or both.<sup>15</sup>

### California Landscape

The *2006 California Problem Gambling Prevalence Survey*<sup>16</sup> is the first and only comprehensive survey of gambling participation and gambling-related problems among adult residents of California. Data collection was carried out via a telephone survey between October 2005 and April 2006 and the final sample included 7,121 respondents.

In 2006, 83 percent of the California respondents acknowledged ever participating in one or more of the gaming activities included in the questionnaire. Nearly six in ten California adults

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<sup>9</sup> Welte JW, Wieczorek WF, Tidwell MC, Parker J (2002). Gambling participation in the U.S. – results from a national survey. *Journal of Gambling Studies*; 18(4) Winter 2002, p. 325.

<sup>10</sup> Ibid., p. 325.

<sup>11</sup> Welte JW, Wieczorek WF, Barnes GM, Tidwell MC, Hoffman JH (2004). The relationship of ecological and geographic factors to gambling behavior and pathology. *Journal of Gambling Studies*; 20(4) Winter 2004: 405-23.

<sup>14</sup> Abbot M, Volberg R, Bellringer M, Reith G (2004). A review of research on aspects of problem gambling, final report. Executive Summary. Auckland University of Technology, Gambling Research Centre; Prepared for Responsibility in Gambling Trust; October 2004; p. 50-51.

<sup>15</sup> Levens S. Gambling among older primary care patients: an important public health concern, *American Journal of Geriatric Psychiatry*, 13(1), January 2005 p. 69-76.

<sup>16</sup> Volberg R, Nysse-Carris K, Gerstein D (2006). 2006 California problem gambling prevalence survey; Submitted to California Department of Alcohol and Drug Programs Office of Problem and Pathological Gambling.

(58 percent) have gambled in the past year and nearly one-quarter (22 percent) gamble once a month or more often. One in ten California adults (10 percent) gamble once a week or more often.<sup>17</sup>

The data collected from the survey enabled an extrapolation of the range of pathological gamblers in California from 300,000 to 490,000 and for problem gamblers from 450,000 to 714,000. Thus, the total number of persons in California in 2006 suffering from either disease range from three-quarters of a million people to just over 1.2 million. The survey also identified another level of problem gambling called at-risk gamblers. It is estimated that there are 2.2 to 2.7 million at-risk gamblers in California. These individuals are of interest because they represent such a large proportion of the population, because of the possibility that their gambling-related difficulties may become more severe over time, and because the prospects of changing their behavior through effective public awareness and education campaigns are better than for more troubled gamblers.<sup>18</sup>

Using data from the *2006 California Problem Gambling Prevalence Survey* and the California Department of Finance population estimate for Contra Costa County in 2006, The Abaris Group estimated the range of at-risk (88,200-106,600), problem (17,400 to 27,700) and pathological (11,300 to 19,500) gamblers. This equates to a range of 11.4 percent to 15 percent of the total population falling into one of these three gambling categories (or 116,900 to 153,800).

The table below shows that problem gamblers are significantly more likely than at-risk or low-risk gamblers in California to identify their physical health status as poor or fair as opposed to good or excellent. Problem gamblers are also significantly more likely than at-risk or low-risk gamblers to acknowledge that they presently have a physical disability (including hearing problems, vision problems and mobility problems) or an emotional or mental disability. Finally, problem gamblers are significantly more likely than at-risk or low-risk gamblers to have experienced symptoms of major depression at some time in their lives and within the past 12 months and to have ever contemplated or attempted suicide.<sup>19</sup>

Differences in Physical and Mental Health by Problem Gambler Type				
Variable	Low-Risk Gambler (n=4,982)	At-Risk Gamblers (n=674)	Problem & Pathological Gamblers (n=264)	Significance
General health poor to fair	20.5%	26.5%	36.2%	<.001
Physical impairment	19.4%	21.4%	34.5%	<.001
Mental impairment	4.0%	53.0%	11.6%	<.001
Depression (past year)	12.2%	20.3%	37.0%	<.001
Suicidal thoughts (ever)	7.9%	13.1%	19.7%	<.001
Suicide attempt (ever)	2.3%	4.5%	8.0%	<.001

With respect to the public health impacts of gambling, the survey showed that problem and pathological gamblers in California are significantly more likely than other gamblers and non-gamblers to smoke cigarettes daily and to have used tranquilizers, cocaine or other illicit drugs in the past year. In general, gamblers are more likely than non-gamblers to consume alcoholic beverages regularly with rates increasing with problem gambling severity. Use of marijuana in

<sup>17</sup> Volberg, Nysse-Carris, Gerstein, p. 30

<sup>18</sup> Volbert, Nysse-Carris, Gerstein, p. 2

<sup>19</sup> Volbert, Nysse-Carris, Gerstein, p. 81-82

the past year is more closely correlated with problem gambling than with at-risk or pathological gambling. Illicit use of methamphetamine in the past year is clearly correlated with increasing severity of gambling problems among California residents—a relationship that has not previously been explored.<sup>20</sup>

Other findings showed that at-risk, problem and pathological gamblers are more likely than others in the population to smoke. Only 12.3 percent of low-risk gamblers were found to smoke daily compared with 25.9 percent of at-risk gamblers and 29 percent of problem and pathological gamblers. Heavy alcohol consumption was also found to be more prevalent in at-risk, problem and pathological gamblers than in low-risk gamblers. 13.7 percent of low-risk gamblers compared with 29.8 percent of at-risk and 25.8 percent of problem and pathological gamblers reported to have consumed 8 or more alcoholic beverages in a 24-hour period over the past year. For illicit drugs, at-risk, problem and pathological gamblers showed a higher prevalence of use than low-risk gamblers. Marijuana use was more than twice as prevalent for pathological and problem gamblers than low-risk gamblers (17.4 percent versus 8.2 percent) and cocaine use was more than three times as prevalent (3.4 percent versus 1 percent).<sup>21</sup>

Among other impacts, the *2006 California Problem Gambling Prevalence Survey* also studied the issues of crime and the impact of gambling on families. With respect to crime, problem gamblers in California are significantly more likely than low-risk or at-risk gamblers to have ever been arrested and incarcerated. Pathological gamblers, in turn, are significantly more likely than problem gamblers to have ever been arrested (35.1 percent versus 25 percent) and ever incarcerated (20.5 percent versus 11.1 percent), suggesting that the magnitude of criminal justice impacts increases with problematic gambling status.<sup>22</sup>

Finally, problem gamblers in California are significantly more likely than low-risk or at-risk gamblers to have been troubled in the past year by the gambling involvement of someone they know. Problem gamblers were queried at the end of this section about whether they had ever argued with a family member about their gambling to the point where it became emotionally harmful – 10 percent of problem gamblers and 29 percent of pathological gamblers replied that they had argued about their gambling to the point where it became emotionally harmful.<sup>23</sup>

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<sup>20</sup> Volberg, Nysse-Carris, Gerstein, p. 4

<sup>21</sup> Volberg, Nysse-Carris, Gerstein, p. 82

<sup>22</sup> Volberg, Nysse-Carris, Gerstein, p. 83

<sup>23</sup> Volberg, Nysse-Carris, Gerstein, p. 84

## California Problem Gambling Helpline Use

According to the California Council on Problem Gambling, a non-profit organization dedicated to helping problem gamblers, 6,807 Californians called the organization's gambling help line in 2007<sup>25</sup>, which represented a 44.3 percent increase from 2006 (it should be noted that in 2007, the State of California implemented a problem gambling helpline advertising campaign).

In 2007, 63.2 percent of all callers indicated their preference for gambling in a Native American casino. In fact, for every subsequent year, the top gaming site choice was Native American Casinos. The California Council on Problem Gambling also collected data by area code. The total number of calls for the area codes comprising the Bay Area was 261 in 2001 and in 2007 that number jumped to four times that amount, to 1,081. The 510 area code (includes Richmond) had the highest number of help line calls in 2007 at 288 – over a quarter of all the Bay Area help line calls.

California Statistics on Problem Gambling (PG) <sup>1</sup>								
	2001	2002	2003	2004	2005	2006	2007	Avg. Annual % Change
Total PG Calls	2,176	2,998	2,800	3,399	3,968	4,718	6,807	35.5%
Primary Gambling Preference <sup>2</sup>								
Indian Casinos	877	1,558	1,792	2,234	2,437	2,866	4,305	65.1%
Nevada Casinos	235	230	160	145	186	247	266	2.2%
Card Rooms	106	132	100	123	204	506	969	135.7%
Sports Betting	82	133	55	90	81	130	170	17.9%
Lottery	68	84	54	63	73	94	184	28.4%
Horse Racing	61	97	84	78	57	82	121	16.4%
Other	26	54	35	51	64	197	347	205.8%
Internet	24	49	37	94	175	183	150	87.5%
Bingo	15	18	10	5	13	17	27	13.3%
Unknown	682	643	473	516	678	396	268	-10.1%
<b>Total</b>	<b>2,176</b>	<b>2,998</b>	<b>2,800</b>	<b>3,399</b>	<b>3,968</b>	<b>4,718</b>	<b>6,807</b>	<b>35.5%</b>
Help Line Calls by Bay Area Area Code <sup>3</sup>								
415	64	74	60	86	72	108	139	19.5%
510	61	73	79	107	104	171	288	62.0%
707	51	51	87	118	148	183	238	61.1%
650	25	38	33	30	54	58	97	48.0%
831	10	10	13	11	21	26	24	23.3%
408	32	30	62	89	88	117	193	83.9%
925	18	33	42	59	76	83	102	77.8%
<b>Total</b>	<b>261</b>	<b>309</b>	<b>376</b>	<b>500</b>	<b>563</b>	<b>746</b>	<b>1,081</b>	<b>52.4%</b>

<sup>1</sup> While data for 2008 was available, the CA Lottery Helpline service ended in 9/2008, thus 2008 data were not comparable to the previous years and was excluded.

<sup>2</sup> Not all callers identified a gambling preference.

<sup>3</sup> Data is based on caller willingness to disclose information and does not include CA Lottery Helpline calls.

Note: In 2007 the State of California funded a problem gambling helpline advertising campaign.

Source: California Council on Problem Gambling, *Helpline Statistics*, 2001-2008, [www.calproblemgambling.org](http://www.calproblemgambling.org).

<sup>25</sup> 2008 data were available however incomparable to previous years because the Lottery Helpline was discontinued in September 2008.

## Other Social Impacts

Empirical research on various social impacts of gambling have been ongoing since gambling became legalized, but even more studies are being conducted given the growth in the gambling industry. There has also been a significant rise in the number of organizations dedicated to understanding the affects of gambling on society. The majority of research focuses on the many issues surrounding problem and pathological gambling. While many studies show a correlation between gambling and a rise in social problems, other studies are inconclusive or show little or no correlation. There have also been some economically-based studies highlighting a direct impact between a studied issue (i.e., crime, bankruptcy, etc.) and gambling without addressing problem and pathological gambling. The Abaris Group addresses some of these issues in its analysis.

There are several societal issues that are believed to be affected by gambling.

- Alcohol & other drugs
- Bankruptcy
- Child abuse & neglect
- Crime
- Divorce
- Domestic violence
- Mental health
- Smoking
- Suicide
- Truancy

A recent article published in the *British Medical Journal* demonstrates that problem gambling has clear health related consequences.<sup>28</sup> The article describes studies that show evidence of problem gambling and societal consequences. For example, in 2003 the National Coalition Against Legalized Gambling reported that, with the opening of casinos in South Dakota, child abuse and domestic assaults rose by 42 percent and 80 percent, respectively. This was attributed to the increase in casino gambling.<sup>29</sup>

One study published in 2002 showed that in metropolitan areas where a casino exists there is a modest elevation in suicide rates. This same study also analyzed the data using a different methodology and concluded that there were no changes in suicide rates in metropolitan areas with or without casinos. However, the authors write that the finding of the moderate increase in suicide rates should not be summarily dismissed.<sup>30</sup>

The affects of smoking and second-hand smoke have been shown to have very high societal costs and implications. The following quote from a study published in 2003 about second hand smoke states “[The study] findings demonstrate that exposure of nonsmokers to environmental

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<sup>28</sup> Griffiths, M, 2004. Betting your life on it. *BMJ* 2004;329:1055-6.

<sup>29</sup> Ibid., p. 1055

<sup>30</sup> McCleary R, Chew KSY, Merrill V, Napolitano C, 2002. Does legalized gambling elevate the risk of suicide? An analysis of U.S. counties and metropolitan areas. *Suicide and Life-Threatening Behavior*; 32(2), Summer 2002, p. 209-221.

tobacco smoke (ETS) in a commercial setting results in uptake of tobacco-specific lung carcinogen.”<sup>31</sup>

Crime and bankruptcy are two other societal issues affected by gambling. A study published in the December 2004 issue of *Psychological Reports* (“Legalized Gambling and Crime in Canada” by F. Stephen Bridges, Ph.D.) states that there were positive associations for robbery with casinos and slot machines, etc. The relationship between an increase in crime and having a casino in a community continues to be studied.

The East Bay Coalition Against Urban Casinos<sup>32</sup> studied the impact of a casino in San Pablo, California that expanded the number of slot machines from 500 in 2005 to 1,048 in 2006. They analyzed data from the City of San Pablo Police Department and the City of Richmond’s dispatching center. What they found was that crimes at Casino San Pablo increased (vehicle thefts were 14 in FY2005 and rose to 53 in FY2006, disturbance calls increased from 36 to 115, and burglary calls went from 7 to 24). Crime in surrounding neighborhoods also increased (trespassing calls went from 14 to 62, public drunkenness went from 14 to 28 and drug possession calls increased from 6 to 18).

Gambling clearly increases individual bankruptcies as demonstrated by several studies. The Institute for the Study of Gambling and Commercial Gaming published an article entitled “Casino Gambling and Bankruptcy in New U.S. Casino Jurisdictions.” The article states, “The results indicate that casino gambling is associated with an increase in personal bankruptcy in seven of eight communities. In five of the seven communities the increase is statistically significant.”<sup>33</sup>

A paper released in March 2004 by Ernie Goss, Ph.D., Visiting Scholar at the Congressional Business Office (CBO)<sup>34</sup> showed that during the 1990s, counties with legalized casino gambling experienced a cumulative growth rate in individual bankruptcies that was more than double the growth rate for corresponding non-casino counties. The study also showed a decline in the number of business bankruptcies compared to the counties without a casino. Dr. Goss is currently updating this paper. The key finding in the updated study is that the effect of a casino on bankruptcy varies depending on how long the casino has been in operation – bankruptcy increases in the first years of casino operations.<sup>35</sup>

Another study conducted by Barron, Staten and Wilshusen (2002) also concluded that casinos have had a positive and statistically significant impact on personal bankruptcy rates in the casino county and its geographic neighbors.<sup>36</sup>

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<sup>31</sup> Anderson KE, Kliris J, Murphy L, Carmella SG, Han S, Link C, Bliss RL, Puumala S, Murphy SE, Hecht SS, 2003. Metabolites of a tobacco-specific lung carcinogen in nonsmoking casino patrons. *Cancer Epidemiology, Biomarkers & Prevention*; Vol. 12, December 2003, p. 1544-1546.

<sup>32</sup> The East Bay Coalition Against Urban Casinos, Gambling with our future: casino san pablo’s impact on local communities one year after the introduction of slot machines.

<sup>33</sup> [www.unr.edu/gaming/papers.asp](http://www.unr.edu/gaming/papers.asp), as of May 10, 2005.

<sup>34</sup> Goss E, Economics Professor, Visiting Scholar, Congressional Budget Office, Morse E, Law Professor, Creighton University, March 12, 2004. The impact of casino gambling on bankruptcy rates: a county level analysis.

<sup>35</sup> Goss E, Morse E, Deskins J, 2009. Have casinos contributed to rising bankruptcy rates? *International Atlantic Economic Journal*, pending publication.

<sup>36</sup> Barron JM, Staten ME, Wishusen SM, 2002. The impact of casino gambling on personal bankruptcy filing rates., *Contemporary Economic Policy*. Oxford University Press, vol. 20(4), p. 440-455.

## California American Indian Casino Impact

Focusing solely on California and the impact of gambling on its counties, two economists from California State University, Sacramento conducted a study in 2004 on the impact of Native American casinos on California counties.<sup>37</sup> In conducting this cross-sectional analysis of California counties in 2000, the study found that those counties with a greater casino presence (more slot machines and/or more gaming tables) had somewhat higher crime rates. Aggravated assaults and violent crime were two categories of crime that were strongly related to casino presence. With respect to bankruptcy filing rates, those counties with a greater casino presence were associated with higher bankruptcy filing rates, especially for individual filings. The study also found that counties with a greater casino presence had modestly lower unemployment rates (primarily in those counties with gaming tables because they require more labor than slot machines) and modestly higher tax revenues (particularly in two major categories closely related to casinos and tourism – hotel occupancy taxes and tobacco taxes).

The authors note that their findings seem to run parallel to another study that was conducted by the National Bureau of Economic Research (NBER) released in September 2002. This study analyzed data throughout the U.S. comparing counties with tribal casinos and counties without tribal casinos. “Four years after a casino opens, bankruptcy rates, violent crime, auto thefts and larceny are up 10 percent in counties with a casino.”<sup>38</sup> On the other hand, the positive impacts showed that counties with or near a casino the number of employed increased and mortality declined.

## Public Health Impact of Gaming in Contra Costa County

The Contra Costa Health Services Community Wellness & Prevention Program (CW&PP) believes that the negative effects on public health of the proposed casinos would be significant, particularly in terms of tobacco use and asthma. In addition, these negative effects would be concentrated in San Pablo, Richmond and North Richmond, communities already burdened with severe environmental hazards. Negative affects from casinos would conflict with Contra Costa’s Environmental Justice Policy which seeks to ensure that new projects and developments do not increase the environmental burden that low-income communities already face. Presented below are CW&PP’s key concerns regarding these threats to the public’s health.

### Tobacco Use

Because Native American Indian tribes are sovereign nations, they are not subject to California’s smoke-free workplace laws or to local smoking ordinances. The only way they can become smoke-free is through a compact with the state or local government, or through voluntarily action by the tribal owners. Thus, it is expected that the casino and surrounding buildings/areas would allow smoking.

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<sup>37</sup> Ortiz JL, Corcoran SP, California’s gaming propositions: how has the expansion of gaming rights affected local communities. October 2004. Cited here with permission from the authors.

<sup>38</sup> Evans WN, Topoleski JH, 2002. The social and economic impact of native american casinos. National Bureau of Economic Research, September 2002.

<sup>45</sup> Max W., Rice D.P., Zhang X., Sung H.-Y., Miller L., *The Cost of Smoking in California*, 1999. California State

Adult Smoking Rates. At 14.3 percent, California's adult smoking rate is the second lowest in the nation (*California Adult Tobacco Survey, 2005*). Contra Costa's adult smoking rate is 12.4 percent, down from 19.4 percent in 1990 (*California Tobacco Survey, 1990, 2005*). This decrease of 36.1 percent in the adult smoking rate demonstrates how community norms regarding tobacco use have changed over the past two decades.

Smoking in the proposed casino presents a challenge to the norms California has worked hard to establish for its residents. According to Professor William Thompson of the University of Nevada, excluding Las Vegas, most casino patrons are local residents (*Urban Casinos: A Town Hall Meeting, January 2005*).

Local Contra Costa residents, whose smoking rates are low, will be exposed to pro-tobacco and pro-smoking behaviors. This, in turn, is likely to lead to an increase in smoking rates among casino patrons and, in turn, the County adult smoking rate. An increase in the smoking rate translates into increased healthcare costs to the County. It is known that the economic burden of smoking in California was \$15.8 billion dollars in 1999. That translated into \$228 million in direct medical costs in Contra Costa, \$459 per County resident.<sup>45</sup> This cost is likely to increase if smoking rates in the county increase.

Exposure to Second-hand Smoke. Second-hand smoke contains a mixture of more than 4,000 chemicals, including more than 50 carcinogens. In 2006, the US Surgeon General and the California Air Resources Board concluded that secondhand smoke is a toxic air contaminant and that scientific evidence indicates that there is no risk-free level of exposure to secondhand smoke. It is associated with an increased risk for lung cancer and coronary heart disease in non-smoking adults. It is responsible for 53,000 deaths from these diseases each year in the US and approximately 6,000 in California.<sup>46</sup> The annual health impacts of secondhand smoke in California include: over 400 lung cancer deaths, over 3,600 cardiac deaths, about 31,000 episodes of asthma, about 21 cases of Sudden Infant Death Syndrome, about 1,000 cases of low birth weight in newborns, and over 4,700 cases of pre-term delivery.<sup>47</sup>

In fact, the City of Richmond created an ordinance on May 19, 2009 stating that smoking and secondhand smoke has harmful health and other secondary effects on adults and children. The ordinance regulates smoking in certain enclosed and unenclosed public places within the City of Richmond: public places (excluding sidewalks and streets), places of employment, multi-unit residence common areas, dining areas, recreational areas (parks, hiking trails, etc.), services areas (bus stops, ATM lines, etc.), public events (farmers' markets, concerts, etc.) and multi-unit housing indoor and outdoor common areas. In July, the city went on to adopt 100% smokefree units in multi-unit housing, which is to go into effect in January, 2011.

While no specific employment numbers have been provided, the proposed casino at Point Molate developers have suggested that thousands of jobs may be created at the proposed casino in Contra Costa County. The promise of job creation is one of the most compelling arguments made for a casino in the county. These jobs, however, will come at a high cost to casino workers and to the county. The Contra Costa County Tobacco Prevention Project has received complaints from workers at the Casino at San Pablo who have complained about the development of respiratory illnesses since the casino became a tribal facility and smoking was

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<sup>46</sup> California Environmental Protection Agency, California Air Resources Board, *Proposed Identification of Environmental Tobacco Smoke as a Toxic Air Contaminant*, 2005.

<sup>47</sup> Contra Costa Health Services, *Policy Options for Reducing Secondhand Smoke Exposure Among Contra Costa Residents and Workers and Improving Public Health*, November 2008

allowed. These workers are worried about their health and their jobs and they have also complained that they believe calling in sick, makes them vulnerable to being fired.

The following are some published facts about second-hand smoke in casinos:

- Smoky casinos contain up to 50 times more cancer-causing airborne particles than highways and city streets clogged with diesel trucks at rush hour. Cancer-causing particulates are virtually eliminated when indoor smoking bans are instituted.<sup>48</sup>
- Regular exposure at work to second-hand smoke can cause a 91 percent increase in coronary heart disease.<sup>49</sup>

Ventilation. Ventilation does not fully address the problems associated with exposure to second-hand smoke. There are no ventilation standards or technology that can remove the carcinogens from second-hand smoke. At best, ventilation systems can address odor and haze. A number of scientific studies show that:

- Casino workers in a “well ventilated” casino had cotinine levels (metabolized nicotine) 300-600 percent higher than in other working workplaces during a work shift.<sup>50</sup>
- “Designated ‘no smoking areas’ in Australian gaming clubs were found typically to provide a 50 percent reduction in exposure to second-hand smoke. The protection afforded is not comparable with that provided by prohibiting smoking on the premises.”<sup>51</sup>

Smoke-free Casinos. There is support for smoke-free tribal casinos in California. The California Department of Health Services reported that 91 percent of Californians surveyed said they would be more likely to visit Native American Indian casinos or would not change patronage if smoking were prohibited in casinos. Similarly, the American Indian Tobacco Education Partnership surveyed over 300 casino guests and workers around the state and found that over 80 percent prefer to work or play in a smoke-free environment.

The Center for Tobacco Policy & Organizing also conducted a survey in November 2008 of 600 California voters to assess their views about secondhand smoke and American Indian casinos.<sup>52</sup> The findings were:

- 97 percent believe that secondhand smoke is harmful to those who inhale it
- 90 percent would either be more inclined to visit or would be unaffected if smoking were prohibited in California Indian casinos, while only 8 percent would be less inclined to visit the casinos
- 69 percent feel that employees in California Indian casinos should have the same protections from secondhand smoke as other employees in California
- 32 percent have visited a California Indian casino in the past year

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<sup>48</sup> Repace J, *Journal of Occupational and Environmental Medicine*, September, 2004

<sup>49</sup> Repace J, *Smoke-Free Casino Advocacy Guide*, American Indian Tobacco Education Partnership, April 2004

<sup>50</sup> D. Trout, J. Decker, et al., *Journal of Occupational and Environmental Medicine*, March 1998

<sup>51</sup> Cains T, Cannata S, Poulos R, et al., *Tobacco Control Journal*, 2004

<sup>52</sup> The Center for Tobacco Policy & Organizing, *Secondhand Smoke Survey: Indian Casinos*, November 2008.

## Asthma

Asthma is a chronic illness that can have serious health consequences for patients and their families. People with asthma have more frequent symptoms and asthma “attacks” if they are exposed to certain environmental “triggers.” The establishment or expansion of casinos in West Contra Costa County will increase the amount of two primary environmental asthma triggers for both casino patrons and local residents: environmental tobacco smoke (ETS) and diesel particulate matter (DPM).

Asthma and Tobacco Smoke. One environmental trigger for asthma is tobacco smoke. Tobacco smoke is known to cause asthma in otherwise healthy individuals. Conversely, reducing exposure to environmental tobacco smoke may also reduce asthma attacks. Should new tribal casinos allow indoor smoking there is the potential for an increase in asthma attacks and emergency medical care. This could result in an increase in county costs to treat asthma patients if they do not have medical coverage.

Asthma and Traffic. According to the American Lung Association, air pollution is known to have serious health impacts including reductions in lung function, lung tissue damage, and aggravation of lung diseases such as emphysema, bronchitis and asthma. Emissions from motor vehicles, including diesel particulate matter, contribute to poor air quality. High levels of diesel particulate matter are known to increase asthma attacks and symptoms in both children and adults, and may be a contributing factor causing asthma in otherwise healthy individuals. Elevated levels of diesel particulate matter also have been linked to lung cancer. In addition, they recently have been found to contribute to 6,500 premature deaths, and 350,000 asthma attacks, annually in California.

The American Lung Association gave Contra Costa County a grade of F in 2009 for particle pollution and ozone days. Ozone pollution can shorten life, a conclusion confirmed by the latest scientific review by the National Research Council.<sup>53</sup> The top solution the American Lung Association provided to improve Contra Costa County’s air quality is to drive less.

According to the Transportation and Land Use Coalition’s 2004 Report, *Cleaning the Air, Growing Smarter*, air pollution problems hit disadvantaged Contra Costa communities the hardest. That report studied eleven low-income and minority communities in the County for air pollution levels and associated health impacts. Three of these communities are precisely those in which the proposed new tribal-run casino would be located: Richmond, San Pablo, and North Richmond.

These communities bear a double burden of air pollution from a combination of both elevated industrial and transportation-related pollution. Not surprisingly, these communities have higher asthma hospitalization rates than the County average. In Richmond, for example, asthma hospitalization rates are two and half times higher than the rest of the County. Children living in San Pablo and Richmond have significantly higher hospitalization rates for asthma than do children in other communities in Contra Costa County. The rate of childhood hospitalization for

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<sup>53</sup> Committee on Estimating Mortality Risk Reduction Benefits from Decreasing Tropospheric Ozone Exposure, National Research Council. Estimating Mortality Risk Reduction and Economic Benefits from Controlling Ozone Air Pollution, 2008.

asthma in San Pablo is 41.2 per 10,000. The childhood asthma hospitalization rate in Richmond (30.5 per 10,000) is higher than the overall County rate (17.0 per 10,000).<sup>54</sup>

Another outcome of the poor air quality in Richmond and San Pablo is that the Bay Area Air Quality Management District's draft report, *California Environmental Quality Act (CEQA) Thresholds of Significance*, April 2009, has identified them as one of six communities in the San Francisco Bay Area Air Basin with the highest cancer risk from toxic air contaminants.<sup>55</sup>

The proposed casino at Point Molate would increase traffic in the area and thus air pollution. A report published in July 2005 by Contra Costa Health Services and other community organizations (*Deluged by Diesel: Healthy Solutions for West County*) estimates that there is 6 times more diesel pollution released per square mile in West County than in the County as a whole, and 40 times more than in California. Diesel pollution has been identified as one of the biggest health threats in California and is linked to cancer, heart disease, premature death, and other health problems. Other research shows that diesel soot can trigger and may even cause asthma.

#### Traffic Injuries

Casino-related traffic could contribute to traffic related injuries to local residents and casino users. Increased vehicle miles traveled in a given area is linked to motor vehicle injuries, as is driving under the influence of alcohol or other drugs. Historically, both Richmond and San Pablo have had high rates of pedestrian/motor vehicle collisions – some of the highest in the state. San Pablo currently has a high rate of DUI arrests and an Office of Traffic Safety (OTS) ranking in the top one-third of California cities (in its size category) for incidence of drinking and driving among 21-34 year olds.

Increased traffic volume will naturally increase traffic related issues surrounding the proposed casino, and the potential for alcohol related collisions is of concern should the casino serve alcoholic beverages. To the extent that walking and bicycling is a part of the transportation plan for the area, pedestrians and bicyclists will also be at risk.

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<sup>54</sup> Contra Costa Health Services and Hospital Council of Northern & Central California, Community Health Assessment, Planning and Evaluation Group (CHAPE), Community Health Indicators for Contra Costa County, June 2007, p. 166.

<sup>55</sup> Bay Area Air Quality Management District, *Workshop Draft Options Report California Environmental Quality Act (CEQA) Thresholds of Significance*, April 2009, p. 30-31.

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