Reducing Tobacco Use and Secondhand Smoke Exposure: Interventions to Increase the Unit Price for Tobacco Products

Summary Evidence Table* – Updated Evidence (search period: 2009-July 2012)

Author & Year **Study Design** **Quality of Execution**	**Location** **Intervention** **Comparison**	**Targeted Population** **Study Population** **Characteristics**	**Effect measure**	**Reported effect** [95%CI, p-value]	**Summary**
Adams 2012 Panel study Fair (2 limitations) Sampling (1) Teen cohort located in states with low excise taxes and states making fewer tax changes Data Analysis (1) Did not account for coupon discounted cigarettes, cross border or internet cigarette sales	United States (Nationwide) Increases in cigarette prices inclusive of federal and state excise taxes on maternal smoking at the state level and New York City during a five year period (2000-2005) Data from all 29 states + NYC compared	Pregnant Women of all ages Maternal smokers in 29 states along with New York City Sex: Women:100% Age: Mean age is 27.3 Race/eth: White: 63% SES: Any college education: 49%	Quitting behavior (cessation) prior to, during, and after a pregnancy (maternal smoking)	Marginal effects of smoking policy on smoking and quit behaviors, state fixed-effects models, 2000–2005: Pre-pregnancy smoking (N=225,445) Price elasticity = -0.091;Tax elasticity = -0.014 (Real price* coefficient: 0.0052, Real tax* coefficient: 0.0048) Quit by third trimester (N=57,719) Price elasticity = 0.335; Tax elasticity = 0.737 (Real price coefficient: 0.0365 p<0.05, Real tax coefficient: 0.0484 p<0.05) Sustained quit (N=57,719) Price elasticity = 0.737; Tax elasticity = 0.144 (Real price coefficient: 0.0377 p<0.01, Real tax coefficient: 0.0415 p<0.01) *Real price and tax in 2005 dollars averaged for 3 months preceding conception, during third trimester, or post-delivery (Interpreted as the change in the probability of being a smoker given a $1.00 change in the real tax or price (2005 dollars) per pack of cigs	No effect found for smoking in pre-pregnancy A $1.00 increase in real taxes is associated with a 4.8% increase in the probability of quitting by the last 3 months of pregnancy A $1.00 increase in real taxes is associated with a 4.2% increase in the probability of having sustained quitting at 4 months after delivery

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Bush 2012 Before and after study Fair (3 limitations) Sampling (1) Response rate of 39% Data Analysis (1) Variation within and between states over time due to promotional events and other factors were not examined. Classified all non-respondents as continued smokers Other (1) Only 4 of the 16 states had follow-up data	United States (Nationwide) One time federal cigarette excise tax increase from 39 cents to $1.01 per pack (62 cents) on April 1, 2009 Data examined before the tax increase (December 2008 through March 2009), during the month the tax increase was passed (February 2009), and after the tax increase took effect (April 2009, May 2009). Of note 13 states in this study also increased their cigarette excise taxes between November 2008 and November 2009 Comparison is before and after component	Smokers in 16 states Smokers who register/enroll with the quitline program (18+). Sex: Female:59.8% Age: Mean age: 41.5 Race/eth: White/non-Hispanic 78.5%, African American/non-Hispanic 11.5%, American Indian/non-Hispanic 4.9%, Asian/non-Hispanic 0.8, Hispanic 4.3% SES: High School or less: 59.8	Cessation or those who abstained from smoking	Treatment outcomes at 7 months among those sampled for follow-up surveys (4 states) enrolled in quitlines during the time period (full sample) % abstinent (7-day point prevalence) Mar–May 08 Mar–May 09 Responders 30.7 28.7 ITT 11.0 11.4 % abstinent (30-day point prevalence) Mar–May 08 Mar–May 09 Responders 26.8 24.9 ITT 9.6 9.9 # of respondents/# sampled Mar–May 08 Mar–May 09 287/802 338/849 The 7 month outcome data indicates that participant quit rates did not differ for unadjusted and adjusted seven-day and 30-day respondent and intent-to-treat analyses for the before and after tax quiline enrollees. However, the number of tobacco users who enrolled in the quitlines increased after the rise in federal excise taxes Descriptive analyses suggested that federal taxes on cigarettes were associated with increased calls to quitlines	Although the quit rates were similar before and after the federal tax increase, the number of tobacco users who enrolled in the quitlines was larger after the tax increase

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Choi 2011 Interrupted time series Good (1 limitation) Data Analysis (1) Did not account for exposure to media coverage of the cigarette tax increase, peer communi-cation about the cigarette tax increase, or sources of cigarettes	Minnesota, United States (Regional) The $0.75 cigarette excise tax increase (from $0.48 to $1.23) in Minnesota occurred on August 1, 2005, data collected just before the tax increase (round 9: October 2004 to March 2005) and after the tax increase (round 11: October 2005 to March 2006) (MACC survey administered in 2000 baseline - participants interviewed every 6 months through 2007 with 15 rounds of data collection) Comparison is before and after component	Youth and adolescents Ages 12 to 16 selected through random sampling from geopolitical units (GPUs) divided into 129 GPUs according to existing geographic and/or political boundaries, patterns of local tobacco program activities, and number of adolescent residing in an area (N= 3167) (For 30 day smokers) Sex: Male: 50.7% Female: 49.3% Age: Mean of 18.4 ± 1.6 Race/eth: African-American or Black: 1.5% Other: 73 9.4% White: 89.1% SES: Parent education level Some graduate school or higher : 17.0% College graduate: 33.1%	Quit attempts after tax increase, along with general awareness of price	Reported Attempts to Quit Smoking After the Tax Increase Among Past 30-Day Smokers [OR (95% CI)] % Age: 0.77 (0.67, 0.89)* ---- (Gender) Male: 0.97 (0.67, 1.41) 16.5 Female:1.00 16.9 (Ethnicity) AA: 1.04 (0.23, 4.81) 16.7 Other: 1.50 (0.81, 2.63) 21.9 White: 1.00 16.1 (Parent education level) Some grad school or higher: 0.43 (0.18, 0.98)* 7.7 College graduate: 0.88 (0.51, 1.52)* 14.5 Some college/associate degree : 1.33 (0.77, 2.30)* 22.2 High school grad or under: 1.00 19.3 (General awareness/ cigarette price changes) Aware: 2.35 (1.43, 3.86)* 21.6 Unaware: 1.00 0.6 (Living with smokers) Yes: 1.05 (0.72, 1.53) 17.1 No: 1.00 16.4 (No. close friends who smoke(0–4)) 1.11 (0.93, 1.32)* ---- *Adjusted OR Heavier smokers more likely to notice cigarette price increase; lighter smokers indirectly observe price increase as their sources are more social	Past thirty-day smokers who worked more than 40 hours per week, had an awareness of cigarette price changes, were of non-Black or non-White ethnicity were more likely (higher odds of cessation) to engage in a quit attempt as a result of a tax increase. Conversely, those whose parents received graduate education or higher had lower odds of a quit attempt Additionally, for every year increase in age, past-30-day smokers had about four-fifths the odds of attempting to quit because of the tax increase

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		Some college or associate degree: 24.4% High school graduate or under: 25.5%			
Dunlop 2011 Before and after study Good (1 limitation) Data Analysis (1) Did not account for variations in other policy or program influences on smokers during this period, such as media campaigns or legislation	Australia (North South Wales (NSW) region) 2010 quitters (after tax increase group) On 30 April 2010, the Federal Government announced a 25% increase in tobacco tax, effective immediately, raising the price of an average pack of 30 cigarettes by around $2.20. The tobacco tax increase occurred while the survey was in progress allowing the opportunity to track individual-level data to assess actual quitting behavior in the months before and after	Australian adult population NSW adult smokers and smokers who had stopped smoking in the previous 12 months. 2009 (n =1604); 2010 (n = 1699) Sex: Male: 49.5% Female: 51.5% Age: 18–29: 20% 30–55: 48% >55: 32% Race/eth: Not reported SES: Education: <Year 12: 30.5% Year 12/Technical college: 45.5% Tertiary: 24% Income: <40000: 39% 40000–80000: 31% >80000: 30% Socioeconomic status: Low 44%	Cessation or quitting activity (stopping smoking or trying to quit within a 1-month period) before and after the tax increase 1)Smokers were defined as those currently smoking cigarettes, pipes or other tobacco products daily, weekly, or less often than weekly. 2) Recent quitters were those who reported that they do not currently smoke at all, but have smoked in the past 12 months	Percentage of respondents with recent quitting activity (cessation) before and after the tobacco tax increase in 2010 and in the same period in 2009 2010 2009 Sex Male 16% 13% Female 13% 9% Age (years) 18-29 16% 9% 30-55 15% 10% >55 14% 12% Income <40000AU 16% 13% 40000-80000AU 13% 9% >80000AU 15% 12% Education <Year 12 12% 12% Year 12/ Technical college 16% 12% Tertiary 17% 9% Socioeconomic status Low 16% 10% Moderate–High 14% 12% Period of quitting activity February–April 12% 12% May–July 19% 12% August–Sept 12% 9% Respondents in the 3 months after the tax increase (May–July) were significantly more likely to report quitting than those 3 months before the tax increase (odds	The 2010 tobacco tax increase was associated with a short-term increase in cessation rates that was not sustained among NSW adult smokers and recent quitters

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	the tax increase. Comparison is before (2009 quitters) and after component			ratio, 1.84; 95% CI, (1.26–2.69); P < 0.01). Not sustained in the following months (August– September)	
Goel 2012 Panel Study Fair (2 limitations) Descriptions (1) Demographic information not described Sampling (1) Sampling eligibility/ frame/ potential bias not well described	United states (Nationwide) Per-capita cigarette demand/ consumption at the state level is modeled as a function of real retail price (includes federal, state, and local taxes), real per-capital disposable income, border price effects, and anti-tobacco regulations Comparison across states	General population of the US Study population not described Characteristics not reported	Demand for cigarettes (per capita) in the US from 1956-2008 Price elasticity: Pooled sample findings over 48 states, individual state results, and results across subgroups are given Income elasticity	U.S. cigarette demand 1956–2008 (evaluates non-price tobacco control policy initiatives) Price Elasticity: 1956–2008 1971–2008 1980–2008 −0.388∗ −0.568∗ −0.824∗ 1990–2008 2000–2008 −0.898∗ −1.203∗ Income Elasticity: 1956–2008 1971–2008 1980–2008 0.128∗ 0.060∗ 0.155∗ 1990–2008 2000–2008 0.216∗ 0.213 *Denotes statistical significance at the 5% level or better 1. Cigarette demand is price inelastic in all states. 2. Border price effects are significant (Cross-border revenue “leakages” due to small and large case smuggling) 3. Income effects are small	Cigarettes are a reliable source of tax revenue due to the relatively inelastic nature of cigarette demand with regard to increases in unit price
Hawkins 2012 Time Series Good (1 limitation) Measurement (1) Parental report of	United States During the 2003 to 2007 period, 40 states raised cigarette excise taxes with a mean increase of 54.5	Adult (smokers) in US with children and adolescents in the household Households (families) with 6 to 17 year olds.	Tobacco use among adults with school-age children and adolescents Disparities in children’s	Changes in policies between 2001 and 2005 (Differences-in-differences (DID) 1)Cigarette excise tax per $1.00 increase Coefficient (95%CI) p-value 0.04 (-0.07,-0.010) 0.008 2)Interaction - tax and child’s	In the DID model, a $1.00 increase in cigarette excise tax between 2001 and 2005 was associated with a 4 percentage point decrease in household tobacco use between 2003 and 2007.

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household tobacco use (Lack of information on household members who smoked or the number of cigarettes smoked)	cents. In 2005, the mean tax was 84.7 cents. From 2001–2005, 18 states strengthened smoke-free legislation. No comparison	N= 67,607 families from 2003 and 62,768 families from 2007 (see Table 1 in original study for characteristics)	secondhand smoke exposure	race/ethnicity Coefficient (95%CI) p-value White -0.05 (-0.08, -0.02) 0.002 Hispanic 0.002(-0.05, 0.05) 0.9 AA 0.001(-0.04, 0.05) 1.0 Multi-racial -0.05(-0.12, 0.03) 0.2 Other -0.05(-0.11, 0.01) 0.08 3)Interaction - tax and household income Coefficient (95%CI) p-value 0–99 % Federal poverty level -0.05 (-0.11, 0.01) 0.1 100–199 % Federal poverty level -0.06 (-0.11, -0.02) 0.008 200–299 % Federal poverty level -0.05 (-0.08, -0.01) 0.01 300–399 % Federal poverty level -0.03 (-0.06, -0.00) 0.05 400 % Federal poverty level or above -0.02 (0.05, 0.00) 0.09 Category 1 and 3 above adjusted for child's race/ethnicity, parent relationship to the child, household employment, income, and education Category 2 includes all except household employment Cross-sectional regression models: Policies in 2001 and 2005 Coefficient 95 % CI p-value -0.03 -0.05, 0.00 0.07 (See Table 2 in paper for race/ethnicity and income results) Regression analyses were repeated using price of cigarettes per pack instead of cigarette excise tax and the result were similar to the above (published) results	Additionally, cigarette tax increases were associated with reductions in household tobacco use for parents of white children and lower income households (independent of race/ ethnicity)

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Lee 2010 Time series Fair (3 limitations) Description (1) No description of the study population Data Analysis (1) No sample size given (Just cigarette packs/capita) Interpretation of Results (1) Information lacking on the consumption and pricing of cigarettes, were drawn from production and import figures. The estimated price elasticity's may contain some deviations	Taiwan (Nationwide) A health tax of 10 NT$ (US$0.3) was imposed in 2009. For tobacco tax: World Trade Organization 2002 (tobacco /wine excise tax and health and welfare tax) Taiwanese Government (health and welfare tax, tobacco health tax) Tobacco and alcohol sales from the Taiwan Tobacco and Liquor Corporation (TTLC) (1973-2000) and the National Treasury Agency (2001-2007). No comparison	Taiwanese aged 15 years or above. Study Population not reported Population characteristics not reported	Price elasticity of demand was reported: 1)Cigarette own-price elasticity 2)Cigarette and alcohol cross-price elasticity	Price-elasticity estimate for cigarettes: -0.726* (25.345) A 18.8% change in price causes: -13.9% change in consumption, or a -277.47 change in consumption (million packs/million 1/million kg) The cross-price elasticity of alcohol with respect to cigarettes: -0.280* (8.835) A 18.8% change in price causes: -5.09% change in alcohol consumption -3.393 million liters change in alcohol consumption Notes: t ratios are shown in parentheses. The coefficient for price elasticity is the effect of an increase in the price on the quantity. * Statistically significant at 5% level	An increase in cigarette taxes may be effective in curbing cigarette consumption in Taiwan. A tobacco health tax may lead to higher cigarette prices, which will effectively reduce both cigarette and alcohol consumption The cross-price elasticity of cigarettes and alcohol indicates a complementary relationship between cigarettes and alcohol. These own- and cross-price elasticity estimates imply that when the price of cigarettes rises (18.2%), consumption (per-captia) of cigarettes (13.2%) and alcohol (5.0%), will fall respectively
Liu 2011 Panel Study Fair (2 limitations) Descriptions (1) No	United States (Nationwide) Test of the long-run equilibrium relationship between excise	Cigarette Tax and Association with Respiratory Cancer Mortality US population between 1954-2005	Morbidity data are reported – relationship between cigarette taxes and respiratory cancers	FMOLS Results by State: Individual state coefficients can be found in Figure 5 of the paper. Overall Panel Coefficient: -0.250 (Z statistic = -15.790) (Significance at the 1% level)	The respiratory cancer mortality rates and cigarette tax data series are not stationary and the two are co-integrated. This shows that higher cigarette excise tax rates lead to lower

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description of study population Data Analysis (1) Models did not control for external factors	taxes and mortality rates of respiratory cancers using panel data. 1) The real cigarette tax rates fluctuated before 1970, declined between 1970 and 1980, and increased gradually after 1980. The overall increases in the real cigarette tax rates after 1980 are notable in 46 states and the District of Columbia 2) The panel series of mortality rates (rate of respiratory cancers cases per 100,000 people in the 50 states and the District of Columbia 1954 to 2005) do not fluctuate around the mean and show positive trends	Study Population not reported Population characteristics not reported	(Mortality rates are age-adjusted to the 2000 US standard population)		mortality rates in most states but this association does not hold for AK, FL, HI, and TX. Conversely, states that benefited the most were tobacco-producing states such as NC, SC, and KY. The co-integrated vector shows a 10% increase in real cigarette excise tax rate leads to a 2.5% reduction in the respiratory cancer mortality rate (nationally). Accordingly, 3,922 deaths are averted per year (based on 2006 US population)

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McFarlane 2011 Before and after study Good (1 limitation) Sampling (1) Response rates for the survey varied from 25% to 35%	New Zealand (Nationwide) There was no substantial tax increase in New Zealand between 2000 and 2010 but in April 2010 a 10% tax increase on factory-made cigarettes and a 24% tax increase on loose leaf tobacco was implemented Telephone surveys before the tax increase in 2009 and one after the tax increase in July 2010 (for comparison of self-reported quit attempts and reasons for quitting smoking since the April tobacco tax increase) Comparison is before (2009 quitters) and after component	Adults smokers (who reported that they smoked more than one cigarette per day) Age of 18 years or greater from 23 telephone directory regions in New Zealand. Sex: Male: 47.9% Female: 52.1% Age: 18–24 years: 6.0% 25–34 years: 17.1% 35–49 years: 36.1% 50–59 years: 16.2% 60 and older: 14.5% Race/eth: Maori: 10.0% Non-Maori: 90% SES: Not reported	Tobacco use behavior (quit attempts, and reasons for quitting smoking) specifically cessation	Adjusted odds ratios for cost as a reason to quit smoking (Adjusted OR(95% CI) and adjusted p-value) OR(95% CI) p-value Year 2009 1.0 2010 3.6 (2.3–5.6) <0.001 Gender Male 1.0 Female 1.9 (0.6–1.4) 0.7 Race Non-Maori 1.0 Maori 1.5 (0.9-2.8) 0.12 Income Low 1.0 Middle 0.6 (0.3–1.0) 0.05 High 0.3 (0.2–0.6) <0.001 High income = >NZ$50 000 Thirty percent of smokers made at least one quit attempt in 2009 and 39% made a quit attempt in 2010 (adjusted odds ratio 1.5, 95% CI 0.95–2.3, p=<0.1). The adjusted odds of making a quit attempt with cost as a reason was 3.6 (95% CI 2.3–5.6, p= <0.001)	Smokers were more likely to make a quit attempt in 2010 than in 2009. Thus, the tax increases on tobacco resulted in more smokers making an attempt to quit smoking and more smokers identifying cost as a motive for quitting

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McLellan 2012 Panel Study Fair (2 limitations) Measurement (1) Landline telephone survey only. Effect of item non response not described Other (1) Intervention not fully elucidated.	United States State cigarette price per pack (adjusted for inflation) was $2.02 (range, $1.95-2.09) for the years 2001-2006	Current smokers and drinkers throughout the U.S. Adults over 18 who have engaged in current smoking; and current binge and heavy drinking n=1,323,758 n=1,050,573 (for binge drinking only) Sex: Female 50.5% Age: 18-20: 4.3% 21-29: 16.5% 30-64: 64.2% 65 and higher: 14.9% Race/eth: Non-Hispanic White: 71.1% Non-Hispanic African American: 9.62% Hispanic: 12.9% SES: <High school degree 11.1% High school grad: 29.5% Some college: 27.3% College graduate or more: 32.1% Unemployed: 5.1% Employed: 64.6% Out of workforce: 30.4%	Prevalence 1)Smoking (and drinking) prevalence by age 2)Smoking (and drinking) response to cigarette price by age group (Current smoking: smoked in the last 30 days)	Smoking prevalence rates by age group, BRFSS 2001-6 (standard error in parenthesis) Current smoking Total 21.79 Current smoking By Age group 18-20: 24.19(0.49) 21-29: 27.58(0.22) 30-64: 22.92(0.08) 65 +: 9.84 (0.11) Smoking response to cigarette price by age group, BRFSS 2001-6 (standard error in parenthesis) Current smoking State cigarette pack price 0.014*(0.007) By age group 18-20: 0.128***(0.029) 21-29: 0.195***(0.014) 30-64: 0.211***(0.008) CP x aged 18-20 :-0.032* (0.014) CP x aged 21-29: -0.006 (0.007) CP x aged 30-64: 0.025*** (0.004) *p<.05, **p<.01, ***p<.001 CP= Cigarette price; Covariates for gender, poverty status, race/ethnicity, co-habitating partner status, employment status, educational level, beer price (six-pack), magnitude of state smoke free laws, state poverty rate (see original study for drinking results)	Increases in state cigarette prices may increase or decrease smoking (and harmful drinking) behaviors differentially by age. In those aged 30-64 an increase in cigarette price was associated with a decrease in smoking (Of note - adults aged 21-29 and 65 and older are more likely to increase drinking as a result of increased cigarette prices)

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Ong 2010 Cross-sectional Fair (2 limitations) Descriptions (1) Limited description of study population Measurement (1) No description of increase in price	United States (Nationwide) Smoking participation and sensitivity to cigarette prices among individuals with comorbid alcohol, drug, or mental disorders (ADM) along with the full sample cohort (which included ADM individuals) from Analysis of the 2000–2001 Healthcare for Communities survey. Annual average state cigarette prices were transformed and assigned to individual respondents by state of residence and year of survey response No comparison	Adults in households in the 48 contiguous Current smokers over age 18 (Cigarette survey use question: ‘‘Do you currently smoke or chew tobacco?’’). Population characteristics not reported	Prevalence rates among individuals with drug or mental disorders Price elasticity (The relationship between smoking participation and price)	Full Sample (n=7530) Adjusted Odds Ratio (95% CI): -0.40(1.14,0.34) ADM Sample (n=1206) Adjusted Odds Ratio (95% CI): -1.82(-3.10,0.54), p=.005 No significant effect on smoking participation among full sample (this sample included those with an ADM disorder) When controlling for alcohol dependence, there is a similar significant negative price effect on smoking participation (Price elasticity = -1.83, p=.011). 40% of current smokers had comorbid alcohol, drug or mental disorders	Cigarette prices had a significant negative effect on smoking participation among the ADM sample, but not among the full sample. Smoking participation for individuals with the specified alcohol, drug, or mental disorders was significantly sensitive to cigarette prices: (10% price increase would result in an 18.2% decline in smoking participation) Alcohol dependence and depression were significantly associated with higher smoking participation whereas binge drinking was significantly associated with lower smoking participation

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Peretti-Watel 2012 Cross sectional Fair (2 limitations) Measurement (1) Potential recall bias from design of questionnaire Other (1) Study emphasizes the responses of smokers who did not quit	France Between 2000 and 2007, the French government gradually increased cigarette prices from 3.3€ to 5.3€ per pack (+40% from 2002–2004 and+15% from 2005–2007) (€) = euro (EUR) No comparison	The entire population of France One adult age 18–75 selected from each household N=2000 (621 Smokers) Response rate: 71% Sex: Male: 54% Female: 46% Age: 18–24: 18% 25–34: 28% 35–49: 33% 50–75; 21% Race/eth: SES: Educational level <below high-school graduation: 57% high-school completed: 19% University degree: 24% Job status: Unemployed: 8% employed, other 92% Financial resources of the household: <1500(€)/month: 20% ≥150(€)/month: 80%	Cessation (quit attempts) (Current smokers defined as smoking cigarettes at least occasionally at the time of the survey)	Smokers' reactions to the cigarette price increase (row percentages; N=621) Quitting attempt (N = 181): 29% Smoking less cigarettes (N = 215): 35% Turning to hand-rolled or cheaper cigarettes (N = 225): 36% Turning to black/foreign market (N = 230): 37% Giving away fewer cigarettes (N = 267): 43% Cadging more cigarettes of other people (N = 44): 7% No reaction at all (N = 146) 24% Male smokers, older smokers, more educated smokers and wealthier smokers tended more frequently to report that they had not reacted at all (no change in behavior)	Persistent smokers reacted to increasing cigarette prices by trying to quit or attempted to reduce the cost of smoking. On the other hand, 24% made no change in their smoking habits The authors found: "A present oriented perspective to be negatively correlated with attempting to quit (or smoking less)"

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Sen 2010 Interrupted time series Fair (2 limitations) Description (1) Lack of population demographic data 2) Analysis may not have accounted for repeated measures among the two sample years	Canada (112 health regions - geographic areas of responsibility for hospital boards or regional health authorities) Aggregate and individual level data from the 2003 and 2005 of the Canadian Community Health Surveys (CCHS) Cigarette taxes in Canada are determined mainly by Federal and provincial excise taxes. On average per carton excise taxes in Eastern Canada tend to be lower than Western Canada No Comparison	Canadian population 12 years of age and over living in the ten provinces and the three territories All those in target population except persons living on reserves and other Aboriginal settlements in the provinces; full-time members of the Canadian Forces; the institutionalized population and persons living in the Quebec health regions of Région du Nunavik and Région des Terres-Cries-de-la-Baie-James Population characteristics not reported	Tax elasticity for smoking prevalence is reported. (Also tax elasticity and probability of obesity reported)	Smoking and cigarette taxes - pooled estimates of health region data (CCHS) (n=224 observations) Tax Elasticity: -0.223* *Controlling for unemployment rate, population, high school postsecondary, families: low income, average personal income, immigrant population, lone parent , visible minorities, urban population Smoking and cigarette taxes – pooled estimates of individual level data (CCHS) (n=156,737 observations) Tax Elasticity: -0.480	A statistically significant relationship exists between higher cigarette taxes and a decline in the percentage of daily smokers across health regions. The cigarette tax elasticity's are within a consistent range of -0.4 and -0.6 Additionally: effect estimates give some evidence on the existence of a statistically significant correlation between cigarette taxes and obesity levels across health regions

*The Task Force finding is based on evidence from 116 studies, including 103 studies identified in two systematic reviews (IARC 2011, search period: 1982-February 2010; Wilson et al. 2012, search period: 1998-January 2012) combined with more recent evidence (13 studies, summarized above). Evidence summaries for the two existing systematic reviews that can be found here:

International Agency for Research on Cancer. IARC Handbooks of Cancer Prevention: Tobacco Control Volume 14. Effectiveness of price and tax policies for control of tobacco. Lyon, France: International Agency for Research on Cancer; 2011. Available at URL: http://www.iarc.fr/en/publications/pdfs-online/prev/handbook14/handbook14.pdf

Wilson LM, Avila Tang E, Chander G, et al. Impact of tobacco control interventions on smoking initiation, cessation, and prevalence: a systematic review. *J Environ Public Health* 2012; 2012:1-36. Available at URL: http://www.hindawi.com/journals/jeph/2012/961724