

**SB 203**

HOUSE COMMITTEE REPORT

(11)

Date Referred: May 15, 1991

FURTHER REFERRALS:

Date of Committee Action: 5/17/91

The FINANCE Committee considered:

SB 203

SENATE BILL NO. 203

ADD SMOKING WARNING TO ALCOHOL SIGNS

"An Act requiring that signs warning of possible danger from drinking alcohol during pregnancy also warn of possible danger from smoking cigarettes during pregnancy."

RECOMMENDATIONS:

be replaced with \_\_\_\_\_  the same title

have attached amendments(s)  a new title

do pass

do not pass

no recommendations

individual recommendations

additional referral to the \_\_\_\_\_ Committee

ADOPTS: \_\_\_\_\_ letter of Intent

ATTACHES NEW FISCAL NOTE(S): (Dept)

APPROVES PREVIOUS: (Dept/Date)

fiscal impact \_\_\_\_\_

fiscal note(s) Dept Revenue 4/15/91

zero fiscal note \_\_\_\_\_

zero fiscal note(s) \_\_\_\_\_

SIGNING DO PASS	DP	OTHER RECOMMENDATIONS	DNP	NR	AM
EP Maclean	✓	Best Sharp			
Mike Savare	✓				
Mark Bame					
Paul Brown	✓				
Tom Koponen	✓				
Jeff Phillips	✓				
Donald Hanson	x				
Ullmer					

Mike Savare  
 Co-CHAIRMAN'S SIGNATURE  
 Maclean

STATE OF ALASKA  
1991 LEGISLATIVE SESSION

Bill Version: SB 203  
(S) Publish Date: 4/10/91

Revision Date: \_\_\_\_\_ Department Affe  
Title: That alcohol warning signs also warn of danger from smoking during pregnancy. BRU: Alcoholic Beverage Control Board  
Component: \_\_\_\_\_

Sponsor: Sen. Sturgulewski & Sen. Menard

Requestor: Sen. HES Committee COMPONENT SERIAL NO. 

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Expenditures/Revenues: (Thousands of Dollars)

OPERATING	FY 92	FY 93	FY 94	FY 95	FY 96	FY 97
PERSONAL SERVICES	-0-	-0-	-0-	-0-	-0-	-0-
TRAVEL	-0-	-0-	-0-	-0-	-0-	-0-
CONTRACTUAL	2.0	.8	.8	.8	.8	.8
SUPPLIES	.2	.1	.1	.1	.1	.1
EQUIPMENT	-0-	-0-	-0-	-0-	-0-	-0-
LAND & STRUCTURES	-0-	-0-	-0-	-0-	-0-	-0-
GRANTS, CLAIMS	-0-	-0-	-0-	-0-	-0-	-0-
MISCELLANEOUS	-0-	-0-	-0-	-0-	-0-	-0-
TOTAL OPERATING	2.2	.9	.9	.9	.9	.9

CAPITAL	-0-	-0-	-0-	-0-	-0-	-0-
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REVENUE	-0-	-0-	-0-	-0-	-0-	-0-
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FUNDING: (Thousands of Dollars)

GENERAL FUND	2.2	.9	.9	.9	.9	.9
FEDERAL FUNDS	-0-	-0-	-0-	-0-	-0-	-0-
OTHER	-0-	-0-	-0-	-0-	-0-	-0-
TOTAL	2.2	.9	.9	.9	.9	.9

POSITIONS:

FULL-TIME	-0-	-0-	-0-	-0-	-0-	-0-
PART-TIME	-0-	-0-	-0-	-0-	-0-	-0-
TEMPORARY	-0-	-0-	-0-	-0-	-0-	-0-

Estimate of current year impact: This note intends that funds be appropriated for FY 92.

ANALYSIS: (Attach a separate page if necessary.)  
See attached cost analysis for initial and annual issuance of signs to liquor licensees and permittees.

Prepared By: Patrick L. Sharrock Phone: 277-8638  
Division: Alcoholic Beverage Control Board Date: March 19, 1991

Approved by Commissioner: \_\_\_\_\_  
Agency: Department of Revenue Date: 3-22-91

Distribution (by preparer): Legislative Finance, Legislative Sponsor, Requestor, OMB, & Impacted Agency(ies).

Initial Issue

Beverage dispensary	679
Restaurant or eating place	314
Club license	81
Brewery	3
Package store	454
Common carrier	175
Recreational site	19
Pub license	1
Winery	0
Community license	3
Club caterer's permit	1
Theatre site license	2
Restaurant caterer's permit	5
	<hr/>
Assume 2 signs per premises	1,737
	x 2
	<hr/>
	3,474

Annual Issue

Caterer's permits	629
Special events-permits	89
Club caterer's permit	6
Restaurant caterer's permit	5
wear and tear	50
	<hr/>
Approximately 50%	779
	x 2
	<hr/>
	1,558

Approx. \$175. per thousand	<u>Initial</u>	<u>Annual</u>
Initial: \$175. x 3,474.	608	
Annual : \$175. x 1,558		272
Postage		
Initial: .75 x 1,737	1,303	
Annual : .75 x 779		584
Envelopes		
Initial: 1,737 x .12	208	
Annual : 799 x .12		93
Letters	<hr/>	<hr/>
	26	
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	2,145	949

## SENATE BILL NO. 203

IN THE LEGISLATURE OF THE STATE OF ALASKA

SEVENTEENTH LEGISLATURE - FIRST SESSION

BY SENATORS STURGULEWSKI, Menard

Introduced: 3/15/91  
Referred: HES and Finance

## A BILL

## FOR AN ACT ENTITLED

1 "An Act requiring that signs warning of possible danger from drinking alcohol during  
2 pregnancy also warn of possible danger from smoking cigarettes during pregnancy."

3 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

4 \* Section 1. AS 04.21.065(b) is amended to read:

5 (b) A warning sign required by (a) of this section must be at least 11 inches by 14  
6 inches. The sign must read, in lettering at least one-half inch high and in contrasting colors,  
7 "WARNING: Drinking alcoholic beverages such as beer, wine, wine coolers, and distilled spirits  
8 or smoking cigarettes during pregnancy can cause birth defects." The license or permit holder  
9 shall display the signs in a manner that would make them conspicuous to a person who will be  
10 purchasing or consuming alcoholic beverages or smoking cigarettes on the licensed or  
11 designated premises.

# Alaska State Legislature



SENATOR  
ARLISS STURGULEWSKI

1111 C STREET, SUITE 550  
ANCHORAGE, ALASKA 99503  
(907) 561-7615

While in Juneau  
P.O. BOX V  
JUNEAU, ALASKA 99811  
(907) 465-3818

## Senate

Sponsor Statement on:

**SB 203 "An Act requiring that signs warning of possible danger from drinking alcohol during pregnancy also warn of possible danger from smoking cigarettes during pregnancy."**

Senate Bill 203 was introduced at the suggestion of the American Lung Association of Alaska. This bill would amend state law to add "or smoking cigarettes" to the signs warning pregnant women that drinking alcoholic beverages during pregnancy can cause birth defects. A 1990 report from the Surgeon General states, "If all women quit smoking during pregnancy, about 5 percent of deaths among newborn infants could be prevented."

I have enclosed supportive testimony presented to the Senate HESS Committee from Dr. Anne Morris and Dr. Kenneth Kesler as well as statistical information provided by Alfred Zangri, Chief of the Bureau of Vital Statistics, Department of Health and Social Services.

Enclosed is a copy of Sec. 04.21.065(a) noting which license or permit holders are required to post the warning signs.

Patrick L. Sharrock, Director of the Alcoholic Beverage Control Board, has provided a letter stating the board has no objection to the legislation. Also enclosed is a Fiscal Note for SB 203 prepared by Mr. Sharrock.

Earlier this year, the Anchorage Municipal Assembly passed the enclosed Ordinance 91-23 pertaining to posting warning signs for pregnant women. These signs include a smoking warning. I have also enclosed a letter of support from Dr. Helen Beirne, Director of the Health & Human Services Department, Municipality of Anchorage.

Enclosures

# STATE OF ALASKA

## DEPARTMENT OF REVENUE

ALCOHOLIC BEVERAGE CONTROL BOARD

WALTER J. HICKEL, GOVERNOR

550 W. 7TH AVE  
ANCHORAGE, ALASKA 99501-6698

March 28, 1991

The Honorable Arlis Sturgulewski, Chair  
Health, Education and Social Services Committee  
Alaska State Senate  
P. O. Box V  
Juneau, Alaska 99811

RE: SB 203

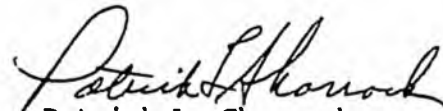
Dear Senator Sturgulewski:

Betty Hargrave, of your office, asked that I provide you with the Alcoholic Beverage Control Board's position concerning SB 203.

The board has no objection to the legislation and, upon enactment, will provide new signs to appropriate licensees.

Thank you for the opportunity to comment.

Sincerely,



Patrick L. Sharrock  
Director, ABC Board  
277-8638

PS/cl

91-49



Tom Fink,  
Mayor

# Municipality of Anchorage

Department of Health and Human Services

825 "L" Street  
P.O. Box 196650 Anchorage, Alaska 99519-6650



April 29, 1991

Senator Arliss Sturgulewski  
Room 427, Capitol  
P. O. Box V  
Juneau, Alaska 99811

Dear Senator Sturgulewski:

SUBJECT: SB 203

I urge you to support SB 203. Section 1 (AS 4.21.065b) refers to a sign warning pregnant women that drinking alcoholic beverages and smoking cigarettes during pregnancy can cause birth defects. Information from numerous researchers and health professionals document this fact. C. Everett Koop, M.D., Surgeon General U.S.P.H.S., 1981-1989 stated "The benefits of smoking cessation are significant. Sensitive and supportive cessation and maintenance efforts can help pregnant smokers to quit. In addition to saving thousands of infants' lives, you will spare numerous children from having excessive respiratory and ear infections and from the burden, even pain, of having to compensate for a slower beginning in life, whether as a result of low birthweight or a birth defect. Researchers have also demonstrated that babies born to mothers and fathers who do not smoke are less likely to become smokers."

If there was any confusion on the Municipality of Anchorage, Department of Health and Human Services' stand on this issue I hope this clears it up.

Thank you for your support of this bill.

Sincerely,

Helen D. Beirne, Ph.D,  
Director, Health and Human Services  
Municipality of Anchorage

This concern has led our Association to ask our legislative leaders to set forth new warning signage. It is modeled on action that was taken by King County (Washington) by rule in December of 1988 and the city of Seattle by ordinance in July of 1989. Their actions were based on similar action taken in San Mateo County (CA) some months before. Recent contact with leadership of the King County Health Department by our Association reports overwhelming acceptance of these pro-health decisions.

This proposed ordinance is quite simple but its effects can be quite profound. If it will help one pregnant woman break the disease of nicotine addiction that is poisoning both her and her unborn child, then we will have made positive progress. But it will not be one woman, it will be many. The end result will be healthier pregnancies and a reduction in premature deaths and critical care for nicotine addicted, low birthweight babies. It will strengthen our communities and save tax and charity dollars.

Yesterday, our Association contacted the executive director of Tobacco-Free America, the legislative clearing house on tobacco and health issues sponsored by the American Heart Association, the American Cancer Society and the American Lung Association; they informed us that to the best of their knowledge no other state has yet enacted such comprehensive warning sign legislation. We in Alaska have the opportunity to pass model legislation in this important area of public health.

As our elected officials, you are custodians of the public good; this includes the public health. I urge your passage of this bill that is a positive step forward -- simple, effective pro-health, pro-family legislation that will help conserve our most precious resource -- Alaska's children.

Anne Morris MD  
10630 East Tree Drive  
Anchorage, AK 99516  
907/346-2897

# AMERICAN LUNG ASSOCIATION of ALASKA

April 25, 1991

VIA FAX

To: Members of the Senate Finance Committee: Senators Kerttula, Pourchot  
Duncan, Adams, Hoffman, Shultz & Uehling

From: Walter L. Hays, Executive Director   
American Lung Association of Alaska

RE: SB 203

SB 203 was introduced by Senators Sturgulewski and Menard at our request.

It is a simple and effective measure that would help extend the important message about the dangers of smoking and pregnancy.

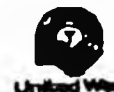
According to the 1990 report of the Surgeon General (The Health Benefits of Smoking Cessation), "if all women quit smoking during pregnancy, about 5% of deaths among newborn infants could be prevented." Alaska data for the year 1989 indicates that a full third of the low birthweight outcomes of babies born during that year were directly related to maternal smoking.

I would call your attention to the materials in your packet that were presented to the Senate HESS committee when this bill was considered by Anne Morris MD and Kenneth Keeler MD. As a neonatologist, Dr. Keeler has done an excellent job in summarizing for you the considerable health risks that smoking places on the pregnant woman and her unborn child.

You will note that the Department of Health and Social Services has also testified in support of this legislation and that the Alcohol Beverage Control Board has indicated that the cost of providing new warning signs state-wide would be nominal indeed.

Similar warning signage has been in place in San Mateo County (CA) and in King County (WA) and the city of Seattle for the past two years. I checked recently with Tobacco-Free America, the legislative clearinghouse on tobacco and health issues sponsored by the American Heart Association, the American Cancer Society and the American Lung Association; they informed me that to the best of their knowledge no other state has yet enacted such comprehensive warning sign legislation. We in Alaska have the opportunity to pass model legislation in this important area of public health.

I urge your strong support for SB 203.



Before the Board of Health of King County, Washington:

RULE AND REGULATION NO. 42

Amendment to King County Code of the Board of Health, Title 5 (Rule and Regulation No. 2), adding a new section relating to posting warning signs, Section 5.60.060.

BE IT ORDAINED BY THE BOARD OF HEALTH OF KING COUNTY:

**SECTION 1. Purpose.** The Surgeon General of the United States has advised women who are pregnant, or considering pregnancy, not to drink alcoholic beverages or smoke cigarettes. Recent research indicates that alcohol consumption during pregnancy, especially in the early months, can harm the fetus, and result in birth defects including mental retardation, facial abnormalities and other defects involving heart and bone structure. In addition, research indicates that maternal cigarette smoking during pregnancy slows fetal growth, lowers birth weight and increases the risk of stillbirths. The King County Board of Health finds that strategically located warnings to deter consumption of alcohol and cigarettes by pregnant women will reduce the incidence of these health effects. The King County Board of Health supports these findings and seeks to educate the public of this health problem.

**SECTION 2.** Section 5.60.060 (Part 69 of Rule and Regulation 2) of the King County Code of the Board of Health is hereby added as follows:

**SECTION 5.60.060. WARNING SIGNS.**

A. After February 1, 1989, signs, warning of the effects of alcoholic consumption and cigarette smoking during pregnancy, shall be posted in all establishments serving alcoholic beverages for consumption on premises. Alcoholic beverages shall include wine, beer, malt beverages and distilled spirits.

B. The sign or notice shall read as follows: "WARNING: DRINKING DISTILLED SPIRITS, BEER, WINE, COOLERS AND OTHER ALCOHOLIC BEVERAGES OR SMOKING CIGARETTES DURING PREGNANCY MAY CAUSE BIRTH DEFECTS."

C. Signs shall be either menu notations at least two inches high, table placards at least three by three inches or signs at least eight and one half inches by eleven inches and posted conspicuously at the bar or point of sale.

**SECTION 3. Effective date.** This chapter shall take effect on February 2, 1989.

Passed this 15th day of December, 19 88.

KING COUNTY BOARD OF HEALTH  
KING COUNTY, WASHINGTON

*Carol Ann Sullivan*  
Chair

*[Signature]*  
Member

Member

ATTEST:

*[Signature]*  
Secretary

GBD:bjv  
4/25/89

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ORDINANCE 114582

AN ORDINANCE relating to the Seattle Food Code; amending SMC Chapter 10.11 by the addition of Section 10.11.696 requiring the posting of warning signs or notices in establishments serving alcoholic beverages.

WHEREAS, the Surgeon General of the United States has advised women who are pregnant, or considering pregnancy, not to drink alcoholic beverages or smoke cigarettes; and

WHEREAS, recent research indicates that alcohol consumption during pregnancy, especially in the early months, can harm the fetus, and result in birth defects including mental retardation, facial abnormalities and other defects involving heart and bone structure; and

WHEREAS, research indicates that maternal cigarette smoking during pregnancy slows fetal growth, lowers birth weight and increases the risk of stillbirths; and

WHEREAS, The City of Seattle finds that strategically located warnings to deter consumption of alcohol and cigarette smoking by pregnant women will reduce the incidence of these health effects and seeks to educate the public of this health problem; Now, Therefore,

BE IT ORDAINED BY THE CITY OF SEATTLE AS FOLLOWS:

Section 1. The Seattle Food Code (Seattle Municipal Code Chapter 10.11) is amended by adding thereto new section 10.11.696, as follows:

10.11.696. WARNING SIGNS OR NOTICES

A. Signs or notices, warning of the effects of alcohol consumption and cigarette smoking during pregnancy, shall be posted in all food service establishments serving any alcoholic beverage for consumption on premises. For the purpose of this section, the term "alcoholic beverage" means and includes wine, beer, malt beverage, liquor, and distilled spirits, each as defined in RCW Ch. 66.04.



Members of the Senate HERS Committee:

My name is Anne Morris. I am a pulmonary physician in private practice in Anchorage. I am Past President of the Alaska Thoracic Society, the medical arm of the American Lung Association of Alaska. In this capacity I have served on the board of the American Lung Association of Alaska for the past twelve years. I have also served on the board of the national organization.

I am here to speak in support of SB 203 as one who sees each day patients whose life, health and happiness have been ruined by smoking and the deadly toll of nicotine addiction.

I want to urge your support for this change of language in the required warning sign about the dangers of alcohol and pregnancy. Let me share with you the summary findings of the 1990 Report of the Surgeon General (The Health Benefits of Smoking Cessation). These are findings from the chapter on Smoking Cessation and Reproduction - the section on Benefits For the Fetus. I quote from the summary of the report.

"Smoking is probably the most important modifiable cause of poor pregnancy outcome among women in the United States... the elimination of smoking during pregnancy could prevent about 5% of perinatal deaths, about 20% of low birthweight births, and about 8% of preterm deliveries in the United States. In groups with high prevalence of smoking (e.g. women who have not completed high school), the elimination of smoking during pregnancy could prevent about 10% of perinatal deaths, about 35% of low birthweight births and about 14% of preterm deliveries." (I have appended a copy of this five paragraph summary from the report to these written remarks.)

Some of the most gratifying work we do at the American Lung Association is with our "Smoke Free Family" program when we are able to help pregnant women overcome nicotine addiction for their own health and the welfare of their unborn child.

Dr. Kenneth Kessler, an Anchorage Neonatologist, has prepared a superb statement on the impact of cigarette smoking on both the mother and the fetus. Dr. Kessler could not be here today but has asked that I share this information with you. A copy of his testimony is in your packets. I call your attention to item 1 -- the effect of nicotine on the placenta is very similar to the effect of cocaine; item 3 - spontaneous abortions are more frequent among women who smoke and item 8 - premature infants may require intensive care for several weeks with hospital bills in Alaska from \$500 to \$1500 per day. (Need I remind you as persons concerned with fiscal management - that someone is paying that bill. If 35% of our population is uninsured, then it is the state and public and private charity that is picking up the bill for these babies at risk.) You will note that Dr. Kessler has given you a reference to eighteen (18) current scientific studies on this subject.

## MATERNAL CONSEQUENCES

1980 - Surgeon General identified the following adverse affects on the fetus from smoking:

- nicotine, hydrogen cyanide, carbon monoxide and other poisonous cross the placenta
- oxygen deprivation
- deficits in behavior and cognitive development may occur

1988 study by National Committee to Prevent Infant Mortality found that:

- a. annually 2,500 U.S. infant deaths are attributable to mothers' smoking
- b. the ones who don't die are at increased risk of:
  - retardation
  - birth defects
  - learning disorder
  - chronic lung disorder

## Alaska Data -- 1989 births

Overall, in Alaska, 6% of our births result in low birth weight babies; yet they account for 57% of our infant deaths

38.5% of Alaska low birth weight babies are born to the 24% of moms that report smoking on the birth certificate

Alaska mothers have the following low birth weight rates:

-smoking mothers	81/1000
-non-smoking mothers	31/1000
-mothers using smokeless tobacco	55/1000

## SMOKING AND PREGNANCY

My name is Dr. Kenneth Kesler. Address 3340 Providence Dr. Ste 366, Anchorage, AK. I am a Neonatologist which is a Pediatrician trained to deal with sick or prematurely born infants. I have reviewed medical literature regarding the effects of cigarette smoking on both the mother and fetus during pregnancy and have lectured for the Alaska Lung Association on this topic.

The number of women in the reproductive ages who smoke has increased from 5% in 1920 to nearly 40% today. There is great interest in the effects of smoking on pregnancy and since 1966 over 2000 articles have been written on this subject, most of which have demonstrated adverse effects of smoking on the mother and fetus. I will try to briefly describe 12 of those effects to you.

1. Two major components of cigarette smoke are carbon monoxide and nicotine, both of which cross the placenta and invade the fetus when the mother smokes. Increased carbon monoxide levels in the fetus and mother decreases the amount of oxygen delivered to the fetus. If a woman is a moderate smoker the effect on the fetus is similar to decreasing 40% of the fetal blood flow.

Nicotine accumulates to high levels in the fetus and results in decreased blood flow to the fetus. This effect of nicotine on the placenta is very similar to effect of cocaine.

2. Increased number of cleft lips, heart defects and severe brain abnormalities have been reported among infants born to women who smoke.
3. Spontaneous abortions are more frequent among women who smoke.
4. There is an increase in the number of pregnancies complicated by placenta problems such as separation of the placenta from the uterine wall which may result in fetal distress or death.
5. The incidence of premature rupture of membranes is doubled in women who smoke.
6. There is a higher rate of stillbirths and neonatal deaths among women who smoke. Some have estimated that maternal smoking is strongly associated with 4600 infant deaths in the United States per year.
7. There are over 50 studies confirming the trend that women who smoke have babies of lower birth weight. Dr. Michael Krarner in association with the World Health Organization demonstrated that "In the developed country, the most important single factor, by far, is cigarette smoking" accounting for nearly one third of all low birth weight infants (meaning infants who weigh less than 5 1/2 pounds).

Limited information is available on smoking during pregnancy in Alaska. I reviewed the information for a recent 3 years period in the Newborn Intensive Care Unit at Providence Hospital. Of the nearly 900 admission 28 % of the mothers admitted to smoking during pregnancy. (These numbers are probably artificially low because they are based on self reporting.)

8. The risk of delivering a baby prematurely (more than 1 month) may be nearly 2 times higher among smoking mothers. The costs of caring for premature infants is extremely high. In 1983 it was estimated that over 3 billion dollars was spend on infants admitted to Intensive Care Nurseries in the United States per year. Prematurely born infants may require intensive care for several weeks with a hospital bill in Alaska of \$500.00 to \$1,500.00 per day.
9. Breast milk contains nicotine and may produce mild to severe symptoms in the newborn and some cases of nicotine poisoning have occurred in babies breast-fed by mothers who smoked heavily.
10. Some preliminary evidence suggest that children born to women who smoke are at higher risk for various cancers when they are adults. This effect of smoking during pregnancy will probably not be scientifically proven for many years because of problems related to designing an adequate study.
11. Some studies have demonstrated various deficiencies in school performance among children born to mothers who smoke which is independent of confounding variables.
12. Nicotine is transferred to growing children in households where smoking occurs. This results in a two fold increase in the rate of Sudden Infant Death Syndrome. Also the incidence of pneumonia and bronchitis are increased in children where the parents smoke.

I have not had time to site the references for the above information. I have made a list of some of these references from journals such as the New England Journal of Medicine, the American Journal of Obstetrics and Gynecology, Pediatrics, and The British Medical Journal which are attached.

No one should leave here with a misunderstanding of the impact of smoking on the fetus and newborn infant. The effects are not trivial. They are significant and may be severe even lethal to the fetus.

This Bill with the signage amendment should be considered carefully. If we are to have an impact on the well being of the urborn, society must address the human behaviors which can adversely affect the fetus and seek methods to alter those behaviors. Smoking and its effect on the fetus is perhaps one of the best documented and easily targeted of these behaviors. I urge you to give sericus consideration to Senate Bill 203.

REFERENCE LIST - SMOKING AND PREGNANCY

1. McIntosh ID; Smoking and pregnancy: I Maternal and placental risks (and) Smoking and pregnancy:II. offspring risks, Public Health Review 12:1-63, 1984  
*(These two articles are excellent reviews of the most important effects of smoking on the mother, fetus and newborn and sites the literature to support them.)*
2. Quigley ME, Sheehan KL, Wilkes MM, Yen SSC; Effects of maternal smoking on circulating catecholamine levels and fetal heart rates. Am J Obstet Gynecol 133:685, 1979
3. Peterson DR; The sudden infant death syndrome-reassessment of growth retardation in relation to maternal smoking and the hypoxia hypothesis, Am J of Epidemiology 113:583, 1981
4. Khoury MJ, Gomez-Farias M, Mulinare J; Does maternal cigarette smoking during pregnancy cause cleft lip and palate in offspring?, American Journal of Diseases of Children 143:333, 1989
5. Lichtensteiger W, Ribary U, Schlumpf M, Odermatt B, Widmer HR; Prenatal adverse effects of nicotine on the developing brain, Progress in Brain Research 73:137, 1988
6. Remmer H; Passively inhaled tobacco smoke: a challenge to toxicology and preventive medicine, Archives of Toxicology 61:89, 1987
7. Werner EJ, Stockman JA; Red cell disturbances in the feto-maternal unit, Seminars in Perinatology 7:139, 1983
8. Kramer MS; Intrauterine growth and gestational duration determinants, Pediatrics 80:502, 1987
9. Suzuki K, Minei LJ, Johnson EE; Effect of nicotine upon uterine blood flow in the pregnant rhesus monkey, American Journal of Obstetric and Gynecology 136:1009, 1980
10. Naeye RL; Influence of maternal cigarette smoking during pregnancy on fetal and childhood growth, Obstetrics and Gynecology 57:18, 1981
11. Rush D, Callahan KR; Exposure to passive cigarette smoking and child development. A critical review, Annals of the New York Academy of Science 562:74, 1989
12. Bergman AB, Wiesner LA; Relationship of passive cigarette smoking to sudden infant death syndrome, Pediatrics 58:665, 1976
13. Butler NR, Goldstein H; Smoking in pregnancy and subsequent child development, British Medical Journal 4:573, 1973
14. Naeye RL; Relationship of cigarette smoking to congenital abnormalities and perinatal deaths, American Journal of Pathology 90,:289, 1978

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15. Naeye RL, Ladis B, Drage JS; Sudden infant death syndrome: a prospective study, *American Journal of Diseases of Children* 130:1207, 1976

16. Meyer MB; Maternal smoking, pregnancy complications and perinatal mortality, *American Journal of Obstetric and Gynecology* 128:494, 1977

17. Kline J, Stein ZA, Susser M, Warburton D; Smoking: a risk factor for spontaneous abortion, *New England Journal of Medicine* 297:793, 1977

18. Naeye RL; Abruptio placentae and placenta praevia: frequency, perinatal mortality, and cigarette smoking, *Obstetrics and Gynecology* 55:701, 1980