Office of the Governor of Guam
P.O. Box 2950 Hagåtña, Guam 96932
TEL: (671) 472-8931 • FAX: (671) 477-4826 • EMAIL: governor@mail.gov.gu

Felix P. Camacho
Governor

Michael W. Cruz, M.D.
Lieutenant Governor

2009 DEC -2 PM 2:31

DEC 01 2009

The Honorable Judith T. Won Pat, Ed.D.
Speaker
Mina' Trenta Na Liheslaturan Guåhan
155 Hessler Street
Hagåtña, Guam 96910

Dear Speaker Won Pat:

Transmitted herewith is Bill No. 101-30(COR) "AN ACT TO AMEND SUBSECTION (A) AND ADD A NEW SUBSECTION (C) TO §90105 OF CHAPTER 90, TITLE 10, GUAM CODE ANNOTATED, RELATIVE TO PROHIBITING SMOKING WITHIN TWENTY (20) FEET OF AN ENTRANCE OR EXIT OF A PUBLIC PLACE WHERE SMOKING IS PROHIBITED" which I signed into law on November 27, 2009 as **Public Law 30-63.**

Sinseru yan Magåhet,

FELIX P. CAMACHO
I Maga'låhen Guåhan
Governor of Guam

Attachment: copy of Bill

30-09-1418
...Speaker
...Won Pat, Ed.D.
12/02/09
10:—

1421

I MINA'TRENTA NA LIHESLATURAN GUÅHAN
2009 (FIRST) Regular Session

CERTIFICATION OF PASSAGE OF AN ACT TO *I MAGA'LAHEN GUÅHAN*

This is to certify that **Bill No. 101-30 (COR), "AN ACT TO *AMEND* SUBSECTION (a) AND *ADD* A NEW SUBSECTION (c) TO §90105 OF CHAPTER 90, TITLE 10, GUAM CODE ANNOTATED, RELATIVE TO PROHIBITING SMOKING WITHIN TWENTY (20) FEET OF AN ENTRANCE OR EXIT OF A PUBLIC PLACE WHERE SMOKING IS PROHIBITED,"** was on the 13th day of November, 2009, duly and regularly passed.

Benjamin J.F. Cruz
Acting Speaker

Attested:

Rory J. Respicio
Acting Legislative Secretary

This Act was received by *I Maga'lahen Guåhan* this 17 day of Nov, 2009, at 4:25 o'clock P.M.

Assistant Staff Officer
Maga'lahi's Office

APPROVED:

FELIX P. CAMACHO
I Maga'lahen Guåhan

Date: 27 Nov 2009

Public Law No. 30-63

I MINA'TRENTA NA LIHESLATURAN GUÅHAN
2009 (FIRST) Regular Session

Bill No. 101-30 (COR)
As amended on the Floor.

Introduced by: Judith T. Won Pat, Ed.D.
B. J.F. Cruz
Judith P. Guthertz, DPA
R. J. Respicio
Ray Tenorio
T. R. Muña Barnes
T. C. Ada
F. B. Aguon, Jr.
F. F. Blas, Jr.
E. J.B. Calvo
J. V. Espaldon
Adolpho B. Palacios, Sr.
v. c. pangelinan
M. J. Rector
Telo Taitague

AN ACT TO *AMEND* SUBSECTION (a) AND *ADD* A NEW SUBSECTION (c) TO §90105 OF CHAPTER 90, TITLE 10, GUAM CODE ANNOTATED, RELATIVE TO PROHIBITING SMOKING WITHIN TWENTY (20) FEET OF AN ENTRANCE OR EXIT OF A PUBLIC PLACE WHERE SMOKING IS PROHIBITED.

BE IT ENACTED BY THE PEOPLE OF GUAM:

Section 1. §90105(a) of Chapter 90, Title 10, Guam Code Annotated, is *amended* to read:

"(a) Smoking *shall* be prohibited in all enclosed public places and within twenty (20) feet of the entrance *or* exit of enclosed public places, including, *but not limited to,* the following places:

(1) Elevators.

(2) Buses, taxicabs, airplanes, and other means of public transit, and ticket, boarding, and waiting areas of public transport depots, including bus stops, bus shelters, *or* any facility provided for students waiting for bus transportation to and from school.

All monies collected from citations issued pursuant to this subsection *shall* be deposited in the Police Services Fund.

(3) Restrooms.

(4) Service lines.

(5) All areas available to and customarily used by the general public in all businesses patronized by the public.

(6) Restaurants.

(7) Public areas of aquariums, galleries, libraries and museums when open to the public.

(8) Any building *not* open to the sky which is primarily used for exhibiting motion pictures, stage shows, musical recitals *or* other performances, *except* when smoking is part of a stage production.

(9) Sports arenas and convention halls.

(10) Every place of meeting *or* public assembly during such time as a public meeting is in progress.

(11) Waiting rooms, hallways, wards and semi-private rooms for health facilities, including, but *not limited to,* hospitals, clinics, physical therapy facilities, doctors' offices and dentists' offices.

(12) Polling places."

Section 2. A new subsection (c) is hereby *added* to §90105 of Title 10, Guam Code Annotated, to read:

"(c) Smoking may be permitted within twenty (20) feet of the entrance *or* exit of a public place only if such smoking area is an open outdoor patio contiguous to the public place and is controlled by the proprietor or management of the public place."

6

I MINA' TRENTA NA LIHESLATURAN GUÅHAN

2009 (FIRST) Regular Session

Date:Nov. 13,2009

VOTING SHEET

Bill No. 101-30 (COR)

Resolution No. _____

Question: _____

_____

NAME	YEAS	NAYS	NOT VOTING/ ABSTAINED	OUT DURING ROLL CALL	ABSENT
ADA, Thomas C.	✓				
AGUON, Frank B., Jr.					EA
BLAS, Frank F., Jr.	✓				
CALVO, Edward J.B.	✓				
CRUZ, Benjamin J. F.	✓				
ESPALDON, James V.	✓				
GUTHERTZ, Judith Paulette	✓				
MUNA-BARNES, Tina Rose	✓				
PALACIOS, Adolpho Borja, Sr.	✓				
PANGELINAN, vicente (ben) cabrera	✓				
RECTOR, Matthew	✓				
RESPICIO, Rory J.	✓				
TAITAGUE, Telo	✓				
TENORIO, Ray	✓				
WON PAT, Judith T.	✓				
TOTAL	14	___	___	___	1

CERTIFIED TRUE AND CORRECT:

Patricia A. Sanfo

Clerk of the Legislature

*3 Passes = No vote

EA = Excused Absence

COMMITTEE ON ECONOMIC DEVELOPMENT, HEALTH & HUMAN SERVICES, AND JUDICIARY

***I Mina' Trenta na Liheslaturan Guåhan* • 30th Guam Legislature**

238 Archbishop F.C. Flores St., DNA Bldg., Suite 701A, Hagatña, Guam 96910

Tel: (671) 969-1495/6 • Fax: (671) 969-1497 • Email: aguon4guam@gmail.com

FRANK B. AGUON, JR.
SENATOR, CHAIRMAN

ADOLPHO B. PALACIOS, SR.
SENATOR , VICE CHAIRMAN

JUDITH T. WON PAT
SPEAKER
EX-OFFICIO MEMBER

BENJAMIN J.F. CRUZ
VICE SPEAKER

TINA ROSE MUÑA BARNES
LEGISLATIVE SECRETARY

THOMAS C. ADA
SENATOR

JUDITH P. GUTHERTZ
SENATOR

RORY J. RESPICIO
SENATOR

FRANK F. BLAS, JR.
SENATOR

TELO TAITAGUE
SENATOR

RAY TENORIO
SENATOR

September 09, 2009

Honorable Judith T. Won Pat
Speaker
I Mina'Trenta na Liheslaturan Guåhan
155 Hesler Place
Hagatña, Guam 96910

2009 OCT 23 PM 3:16

VIA: The Honorable Rory J. Respicio
Chairperson, Committee on Rules

RE: Committee Report – Bill No. 101 (COR)

Dear Speaker Won Pat:

The Committee on Economic Development, Health & Human Services, and Judiciary, to which was referred **BILL NO. 101 (COR) – "AN ACT TO *AMEND* §90105 OF CHAPTER 90, TITLE 10, GUAM CODE ANNOTATED; RELATIVE TO SMOKING WITHIN TWENTY (20) FEET OF AN ENTRANCE OF A PUBLIC PLACE WHERE SMOKING IS PROHIBITED"**, hereby reports out with the recommendation TO PASS.

Committee votes are as follows:

5	**TO PASS**
0	**NOT TO PASS**
0	**ABSTAIN**
2	**TO REPORT OUT ONLY**
0	**TO PLACE IN INACTIVE FILE**

Respectfully,

SENATOR FRANK B. AGUON, JR.
Chairman
Committee on Economic Development,
Health & Human Services, and Judiciary

RECEIVED
DATE: 9-22-09
10:55 AM

RECEIVED
DATE: 9/9/09
2:10 PM

I MINA'TRENTA NA LIHESLATURAN GUÅHAN
(30TH GUAM LEGISLATURE)

COMMITTEE ON
ECONOMIC DEVELOPMENT,
HEALTH AND HUMAN SERVICES,
AND JUDICIARY

SENATOR FRANK B. AGUON, JR.
Chairman

COMMITTEE REPORT

BILL NO. 101 (COR)
as introduced by
Vice Speaker Benjamin J.F. Cruz

AN ACT TO AMEND §90105 OF CHAPTER 90, TITLE 10, GUAM CODE ANNOTATED; RELATIVE TO SMOKING WITHIN TWENTY (20) FEET OF AN ENTRANCE OF A PUBLIC PLACE WHERE SMOKING IS PROHIBITED.

COMMITTEE ON ECONOMIC DEVELOPMENT, HEALTH AND HUMAN SERVICES, AND JUDICIARY

***I Mina' Trenta na Liheslaturan Guåhan* • 30th Guam Legislature**

238 Archbishop F.C. Flores St., DNA Bldg., Suite 701A, Hagatña, Guam 96910
Tel: (671) 969-1495/6 • Fax: (671) 969-1497 • Email: aguon4guam@gmail.com

September 08, 2009

MEMORANDUM

TO: Committee Members

FROM: Chairman

SUBJECT: **Committee Report**
Bill No. 101 (COR), as introduced by
Vice Speaker Benjamin J.F. Cruz

Transmitted herewith for your information and action is the Committee Report on **BILL NO. 101 (COR),** as introduced by Vice Speaker Benjamin J.F. Cruz.

Please take the appropriate action on the voting sheet. Your attention and cooperation on this matter is greatly appreciated.

If you have any questions regarding the report or accompanying documents, please feel free to call my office.

Respectfully,

SENATOR FRANK B. AGUON, JR.

Attachments

COMMITTEE ON ECONOMIC DEVELOPMENT, HEALTH AND HUMAN SERVICES, AND JUDICIARY
I Mina' Trenta na Liheslaturan Guåhan • **30th Guam Legislature**
238 Archbishop F.C. Flores St., DNA Bldg., Suite 701A, Hagatña, Guam 96910
Tel: (671) 969-1495/6 • Fax: (671) 969-1497 • Email: aguon4guam@gmail.com

COMMITTEE VOTING SHEET

BILL NO. 101 (COR) – AN ACT TO AMEND §90105 OF CHAPTER 90, TITLE 10, GUAM CODE ANNOTATED; RELATIVE TO SMOKING WITHIN TWENTY (20) FEET OF AN ENTRANCE OF A PUBLIC PLACE WHERE SMOKING IS PROHIBITED.

	SIGNATURE	TO PASS	NOT TO PASS	REPORT OUT ONLY	ABSTAIN	PLACE IN INACTIVE FILE
FRANK B. AGUON, JR. Chairman		✓				
ADOLPHO B. PALACIOS, SR. Vice Chairman		✓				
BENJAMIN J.F. CRUZ Vice Speaker		✓				
TINA ROSE MUÑA BARNES Legislative Secretary		✓				
THOMAS C. ADA						
JUDITH P. GUTHERTZ				✓		
RORY J. RESPICIO						
FRANK F. BLAS, JR.				✓		
TELO TAITAGUE		✓				
RAY TENORIO						

I. OVERVIEW

The Chairman of the Committee on Economic Development, Health & Human Services, and Judiciary called the public hearing to order on Wednesday, July 15, 2009, 8:07 am, at *I Liheslaturan Guåhan's* Public Hearing Room on ***BILL NO. 101 (COR), "AN ACT TO AMEND §90105 OF CHAPTER 90, TITLE 10, GUAM CODE ANNOTATED; RELATIVE TO SMOKING WITHIN TWENTY (20) FEET OF AN ENTRANCE OF A PUBLIC PLACE WHERE SMOKING IS PROHIBITED",*** introduced by Vice Speaker Benjamin J.F. Cruz.

Notices of the public hearing were disseminated to local media via fax, email and two (2) printed publications, and are attached herein meeting the requirements of the Open Government Law.

Committee Members and Senators present:

Senator Frank B. Aguon, Jr. - Chairman
Senator Adolpho B. Palacios, Sr. - Vice Chairman
Senator Telo Taitague - Member
Senator Vicente "Ben" C. Pangelinan

II. SUMMARY OF TESTIMONY

There being no oral testimony received, the Chairman announced that the committee will continue to receive written testimonies for the next ten (10) days.

All written testimonies provided to the Committee are attached to this report.

III. COMMENTS AND DISCUSSION

The Chairman did acknowledge the oral testimony provided by Dr. Thomas Shieh **IN SUPPORT** of this bill at a public hearing conducted by this committee on Tuesday, July 28, 2009 while providing testimony in support of Bill No. **101**, relative to increasing tobacco tax.

There being no comments or discussion, the Chairman concluded the public hearing on Bill No. 101 (COR).

IV. FINDINGS / RECOMMENDATION

The Committee on Economic Development, Health & Human Services, and Judiciary to which ***BILL NO. 101 (COR), "AN ACT TO AMEND §90105 OF CHAPTER 90, TITLE 10, GUAM CODE ANNOTATED; RELATIVE TO SMOKING WITH TWENTY (20) FEET OF AN ENTRANCE OF A PUBLIC PLACE WHERE SMOKING IS PROHIBITED"*** was referred, does hereby submit its recommendation to *I Mina'Trenta Na Liheslaturan Guåhan* **TO PASS** Bill No. 101 (COR), ***as introduced.***

APR 24 PM 3:32

I MINA' TRENTA NA LIHESLATURAN GUÅHAN
2009 (FIRST) Regular Session

Bill No. 101 (COR)

Introduced by:

B.J.F. Cruz
Judith P. Guthertz, DPA
R.J. Respicio

AN ACT TO *AMEND* §90105 OF CHAPTER 90, TITLE 10, GUAM CODE ANNOTATED; RELATIVE TO SMOKING WITHIN TWENTY (20) FEET OF AN ENTRANCE OF A PUBLIC PLACE WHERE SMOKING IS PROHIBITED.

BE IT ENACTED BY THE PEOPLE OF GUAM:

Section 1. §90105 of Chapter 90, Title 10, Guam Code Annotated is *amended* to read:

"§ 90105. Prohibition of Smoking in Public Places.

(a) Smoking shall be prohibited in all enclosed public places and within twenty (20) feet of the entrance or exit of enclosed public areas, including, *but not limited to*, the following places:

(1) Elevators.

(2) Buses, taxicabs, airplanes, and other means of public transit and ticket, boarding, and waiting areas of public transport depots, including bus stops, bus shelters, *or* any facility provided for students waiting for bus transportation to and from school.

All monies collected from citations issued pursuant to this subsection *shall* be deposited in the Police Services Fund.

(3) Restrooms.

(4) Service lines.

(5) All areas available to and customarily used by the general public in all businesses patronized by the public.

(6) Restaurants.

(7) Public areas of aquariums, galleries, libraries and museums when open to the public.

(8) Any building not open to the sky which is primarily used for exhibiting motion pictures, stage shows, musical recitals or other performances, except when smoking is part of a stage production.

(9) Sports arenas and convention halls.

(10) Every place of meeting or public assembly during such time as a public meeting is in progress.

(11) Waiting rooms, hallways, wards and semi-private rooms for health facilities, including, *but not limited to*, hospitals, clinics, physical therapy facilities, doctors' offices and dentists' offices.

(12) Polling places.

(b) Any owner, operator, manager or other person who controls any establishment, facility or area described within this Chapter where smoking is not or in-part regulated, may prohibit smoking to occur within the entire establishment, facility or area and § 90109, § 90110, and § 90111 of this Chapter shall apply."

SENATOR FRANK B. AGUON, JR., Chairman
COMMITTEE ON ECONOMIC DEVELOPMENT, HEALTH & HUMAN SERVICES, AND JUDICIARY
I Mina'Trenta Na Liheslaturan Guåhan • **30th Guam Legislature**

PUBLIC HEARING DATE / TIME: WEDNESDAY, JULY 15, 2009 / 8:00 AM

AGENDA ITEM: **BILL NO. 101 (COR)** – B.J.F. CRUZ, JUDITH P. GUTHERTZ, DPA, R.J. RESPICIO
An act to *amend* §90105 of Chapter 90, Title 10, Guam Code Annotated; relative to smoking within twenty (20) feet of an entrance of a public place where smoking is prohibited.

NAME (PRINT)	SIGNATURE	AGENCY OR ORGANIZATION	ORAL TESTIMONY	WRITTEN TESTIMONY	IN FAVOR	OPPOSE	CONTACT #
	NONE						

Felix P. Camacho
Governor
Michael W. Cruz, M.D.
Lieutenant Governor

DEPARTMENT OF ADMINISTRATION
(DIPATTAMENTON ATMENESTRASION)
DIRECTOR'S OFFICE
(Ufisinan Direktot)
Post Office Box 884 * Hagatna, Guam 96932
TEL: (671) 475-1101/1250 * FAX: (671) 477-6788

Lourdes M. Perez
Director
Joseph C. Manibusan
Deputy Director

JUN 15 2009

HRD No. OG09-0654

RECEIVED 6/16/09

Senator Rory J. Respicio
I Mina'Trenta Na Liheslaturan Guahan
Chairman, Committee on
Thirty (30th) Guam Legislature
155 Hesler Street
Hagatna, Guam 96910

RECEIVED
6/17/09
2:03pm

Dear Senator Respicio:

Buenas yan Hafa Adai! This is to submit the Department of Administration's comments on Bill 101 (COR), an act to amend §90105 of Chapter 90, Title 10, Guam Code Annotated; relative to smoking within twenty (20) feet of an entrance of a public place where smoking is prohibited.

Our department is in favor of Bill 101 as it supports our current Tobacco Free Workplace Environment Policy as established by Executive Order 2007-18. We have attached our policy which identifies a minimum distance of twenty (20) feet from common work areas. This policy was circulated to all departments and agencies on September 10, 2008 via DOA Organizational Circular No. 05-033. The Chief Justice of the Judiciary of Guam and the Guam Legislature were both encouraged to implement and enforce a 100% tobacco free workplace environment as well.

Si Yu'os Ma'ase for the opportunity to comment on Bill 101(COR). You may contact the Human Resources Division at 475-1288, if you have any questions regarding this matter.

Sincerely,

LOURDES M. PEREZ
DIRECTOR

Attachment

Felix P. Camacho
Governor
Michael W. Cruz, M.D.
Lieutenant Governor

DEPARTMENT OF ADMINISTRATION
(DIPATTAMENTON ATMENESTRASION)
DIRECTOR'S OFFICE
(Ufisinan Direktot)
Post Office Box 884 * Hagatna, Guam 96932
TEL: (671) 475-1101/1250 * FAX: (671) 477-6788

Lourdes M. Perez
Director
Joseph C. Manibusan
Deputy Director

SEP 10 2008

DEPARTMENT OF ADMINISTRATION ORGANIZATIONAL CIRCULAR NO.: 08-033

To: **All Heads of Autonomous and Non-Autonomous Departments and Agencies**

From: **Director, Department of Administration**

Subject: **TOBACCO FREE WORKPLACE ENVIRONMENT POLICY**

Buenas! Effective December 31, 2007, all Government of Guam departments and agencies shall be in compliance with Executive Order (EO) 2007-18, the Tobacco Free Workplace Environment Policy, and Title 10 GCA Chapter 90 relative to the regulation of smoking.

The Executive Branch is committed to provide a healthy, comfortable, and productive work environment for all employees, patrons/clients and visitors.

The Governor's Prevention and Early Intervention Community Empowerment Council 2006 Guam Epidemiological Drug Survey reported that Guam has the highest rate of smoking among all US States and Territories and the top three causes of death on Guam---heart disease, cancer and stroke---are all directly related to smoking.

Title 10 GCA Chapter 90, Section 90106 (e) states that notwithstanding any other provisions of this same section, every employer shall have the right to designate any place of employment, or portions thereof, as a nonsmoking area.

In light of these findings, and recognizing that tobacco-free workplace environment promotes the reduction of tobacco use among smokers and the protection of non-smokers from second hand smoke, all government of Guam Executive Branch departments and agencies will be tobacco-free by December 31, 2007.

The Chief Justice of the Judiciary of Guam and the Speaker of the Guam Legislature have been encouraged through the executive order to implement and enforce a 100% Tobacco Free Workplace Environment Policy in their respective worksites by December 31, 2007, in order to make all three branches of the Government of Guam a healthier environment for its employees, patrons/clients and visitors.

All Appointing Authorities of the Executive Branch are encouraged to adopt the attached Tobacco Free Workplace Environment Policy and shall make available and post in visible areas within and around their respective government premises, this policy to employees, customers/clients, and visitors. If desired, departments/agencies may adopt their own policy. Government of Guam vehicles and those vehicles leased/contracted for government purposes (e.g. School buses, Guam Mass Transit, Department of Public Health's Transportation Services Program) are included and shall be smoke-free.

Please ensure that all employees receive a copy of this memorandum and the Tobacco Free Workplace Environment Policy.

Furthermore, addressees are requested to provide a copy of their department's/agency's policy for a Tobacco-Free Workplace to the Department of Administration Human Resources Division by October 31, 2008.

If you have any questions regarding this policy, please contact Ms. Kathryn Diaz at the Human Resources Division at 475-1249. Si Yu'os Ma'ase!

Lourdes M Perez
LOURDES M. PEREZ

Attachment

DEPARTMENT OF ADMINISTRATION
TOBACCO FREE WORKPLACE ENVIRONMENT POLICY

Mission Statement:

To provide a tobacco-free workplace environment for the Executive Branch of the Government of Guam in order to protect the health of employees and patrons while at government establishments pursuant to Executive Order 2007-18, and Title 10 GCA Chapter 90 relative to the regulation of smoking.

Background and Rationale:

Numerous studies have confirmed that tobacco use is dangerous, and that cigarette smoke is a major contributor to indoor air pollution. Tobacco use and exposure to secondhand smoke are two of the largest preventable causes of premature death today.

Guam has the highest rate of smoking among all US States and Territories. The top three causes of death on Guam---heart disease, cancer and stroke---are all directly related to smoking.

In addition, breathing secondhand smoke causes disease, including heart disease, stroke, respiratory disease, and lung cancer, in healthy nonsmokers. The National Cancer Institute determined in 1999 (Monograph #10) that secondhand smoke is responsible for the early deaths of up to 65,000 Americans annually.

The World Health Organization recognizes tobacco dependence as a form of drug addiction. In fact, nicotine addiction is one of the most powerful and prevalent addictions on Guam.

The Americans With Disabilities Act requires that disabled persons have access to public places and workplaces, and deems impaired respiratory function to be a disability. Persons with impaired respiratory function are at higher risk of adverse health effects from secondhand smoke.

The U.S. Surgeon General has determined that the simple separation of smokers and nonsmokers within the same air space may reduce, but not eliminate, the exposure of nonsmokers to secondhand smoke. The Environmental Protection Agency has determined that secondhand smoke cannot be reduced to safe levels in businesses by high rates of ventilation. Air cleaners, which are only capable of filtering the particulate matter and odors in smoke, do not eliminate the known toxins in secondhand smoke.

A significant amount of secondhand smoke exposure occurs in workplaces that permit smoking. Employees who work in smoke-filled offices suffer a 25-50% higher risk of heart attack and higher rates of death from cardiovascular disease and cancer, as well as increased acute respiratory disease and measurable decrease in lung function. The Centers for Disease Control and Prevention has determined that the risk of acute myocardial infarction and coronary heart disease associated with exposure to tobacco smoke can occur even at low doses, and has warned that all individuals at increased risk of coronary heart disease or with known coronary artery disease should avoid all indoor environments that permit smoking.

Moreover, workplaces that permit smoking result in higher worker absenteeism due to respiratory disease, lower productivity, higher cleaning and maintenance costs, increased health insurance rates, and increased liability claims for diseases related to exposure to secondhand smoke.

Title 10 GCA Chapter 90, Section 90106 (e) states that notwithstanding any other provisions of this same section, every employer shall have the right to designate any place of employment, or portions thereof, as a nonsmoking area.

Finally, policies that create tobacco-free environment have been shown by research to be effective in promoting tobacco-free lifestyles and protecting non-smokers from exposure to secondhand smoke. Creating tobacco-free environment at the workplace is an evidence-based intervention that is supported by the World Health Organization, the Center for Substance Abuse and Prevention, the US Centers for Disease Control and Prevention, the US National Cancer Institute, the American Cancer Society, and other health organizations.

Policy:

The Government of Guam Executive Branch is committed to promoting healthy drug-free lifestyles.

It is the policy of the Executive Branch that a tobacco-free workplace environment promotes the reduction of tobacco use among smokers and the protection of nonsmokers from secondhand smoke. Therefore, the Executive Branch shall provide a tobacco-free workplace environment for all employees, patrons, clients, customers, and visitors and that 100% of the government of Guam Executive Branch will be in compliance effective December 31, 2007. It is further the policy of the Executive Branch that all Directors/General Managers/Department & Agency Heads shall adopt a Tobacco Free Workplace Environment Policy.

Scope & Definition:

1. Tobacco use, including smoking shall not be permitted within the facilities, and on government premises at any time. This includes a minimum distance of 20 feet from common work areas, auditoriums, classrooms, conference and meeting rooms, private offices, elevators, hallways, medical facilities, cafeterias, employee lounges, stairs, restrooms, parking lots, outdoor storage sheds, gardens, walkways and all other facilities owned and operated or leased by the government of Guam. All government of Guam facilities and properties are included in this policy, without exception.

2. In recognition of the fact that Departments and Agencies are situated differently, Department/Agency Heads may reasonably increase the minimum distance as indicated above.

3. There will be no tobacco use in or around any government owned or leased vehicle, doing business transactions at any time (e.g. public transit, school buses enroute to and while transporting passengers). This includes public transit and bus waiting areas.

4. All government-sponsored activities shall be tobacco-free. This includes government-sponsored seminars, conferences and training workshops not on government of Guam premises.

5. This policy shall apply to all employees, patrons, clients, customers, contractors, and visitors.

Procedures:

1. Employees will be informed of this policy upon employment, by supervisors, and signs and notices will be posted on government of Guam premises.

2. Patrons/consumers/clients and visitors will be informed of this policy through signs, and security personnel will explain it upon entry into government of Guam facilities. Consumers will also receive additional information from their service providers.

3. The Department of Administration shall coordinate with the Department of Mental Health to ensure the coordination of tobacco cessation education workshops and identify those employees through evaluations and surveys who desire to quit smoking or chewing tobacco.

4. Any violations of this policy by employees will be handled through the standard disciplinary procedures pursuant to applicable Personnel Rules and Regulations, and may be handled, especially for non-government of Guam employees, through the Sections 90109 and 90110 which can involve fines up to Five Hundred Dollars ($500) depending upon the number of violations.

Compliance:

Report all violations in writing following the mailing address indicated on the letterhead of this policy and indicate: Attention: Employee-Management Relations Branch, Human Resources Division of the Department of Administration. You may also contact the Branch at 475-1249.

15 July 2009

Honorable Frank B. Aguon, Jr.
Ste. 701A, DNA Bldg.
238 Archbishop Flores St.
Hagåtña, Guam 96910

RE: Letter in Support of Bill 101 (An act to amend 90105 of Chapter 90, Title 10, Guam Code Annotated; relative to smoking within 20 feet of a public place where smoking is prohibited)

Dear Senator Aguon,

Hafa Adai!

As the current Chair for Guam's Cancer Control Coalition, I am writing you on behalf of our coalition members to strongly support Bill 101 (An act to amend 90105 of Chapter 90, Title 10, Guam Code Annotated; relative to smoking within 20 feet of a public place where smoking is prohibited).

Cancer increasingly is becoming a major cause of premature death, disability and poor health on our island. The costs of cancer care are prohibitive, with many treatment services not available locally. Yet, most cancers can be prevented with healthy lifestyles.

Tobacco use is the major preventable cause of cancer on our island. Unfortunately, tobacco users are not the only ones at risk for tobacco-related cancers. Many "innocent bystanders", most of them women and children, are exposed involuntarily to tobacco smoke, which science has proven to be a significant cause of multiple cancers. In one local study, the Guam Youth Tobacco Survey conducted in 2002, over 90% of high school students reported exposure to tobacco smoke in public places.

The World Health Organization and the US Surgeon General have stated conclusively that there is no safe level of exposure to second hand smoke. Therefore, the only safe environment is a completely tobacco-free environment. Bill 101, if passed, will strengthen our current smoke-free law and move us closer towards better protection of our people from tobacco-related harm. The bill will also ensure that the right of Guam's non-smokers to a safe environment and clean air is preserved.

We appreciate and thank Senators B.J. Cruz, Judith Guthertz and Rory Respicio for their continued leadership for our island's health, and fully endorse Bill 101.

Sincerely,

Annette M. David, MD, MPH, FACOEM
Chair, Guam Cancer Control Coalition

Cc: Cerina Mariano

For more information please contact:
DPHSS, Guam Comprehensive Cancer Control Program
123 Chalan Kareta, Mangilao, Guam 96913-6304
Telephone: (671) 735-7335 Fax: (671) 734-2066
http://dphss.guam.gov

health partners, l.l.c.
promoting health, providing care

RECEIVED
ACM
7/17/09 2pm

15 July 2009

Honorable Frank B. Aguon, Jr.
Ste. 701A, DNA Bldg.
238 Archbishop Flores St.
Hagâtña, Guam 96910

RE: Letter in Support of Bill 101 (An act to amend 90105 of Chapter 90, Title 10, Guam Code Annotated; relative to smoking within 20 feet of a public place where smoking is prohibited)

Dear Senator Aguon,

Hafa Adai!

As health care providers in the private sector who believe in a holistic, comprehensive and people-centered approach to health care, we strongly support Bill 101 (An act to amend 90105 of Chapter 90, Title 10, Guam Code Annotated; relative to smoking within 20 feet of a public place where smoking is prohibited).

We recognize that the major burden to health on Guam arises from lifestyle-related diseases, and that the major lifestyle-related risk factor for poor health is tobacco use. Further, we are aware of the large and growing body of scientific evidence confirming the danger of second hand smoke and its causative role in heart disease, cancer, lung disease, and Sudden Infant Death Syndrome. As health professionals, it is our role to advocate for the nonsmokers on Guam, who form the majority of our population, and who, despite having chosen to be tobacco-free, remain vulnerable to tobacco-related damage through involuntary exposure to second hand smoke.

Bill 101, if passed, will strengthen our current smoke-free law, help to further protect our people from tobacco-related harm, and will better ensure that Guam' non-smokers' right to a safe environment and clean air is preserved. We commend Senators B.J. Cruz, Judith Guthertz and Rory Respicio for their continued leadership for our island's health.

RECEIVED
7/16/09
AP

Suite 226 ITC Building
590 South Marine Corps Drive
Tamuning, GU 96913
Tel No: +1 (671) 646-5227 or 5228 Fax No: +1 (671) 646-5226
Website: http://www.guamhealthpartners.com

Sincerely,

Annette M. David, MD, MPH
Senior Partner, Health Consulting Services

Joel Marc C. Rubio, MD
Senior Partner, Clinical Services

Kelley M. Barnhart

Heidi L. Cameron

Joyce L. Ibanez

Jeanine L. Pacson

Nora Jane C. Minor

Jacqueline M. Dayrit

Suite 226 ITC Building
590 South Marine Corps Drive
Tamuning, GU 96913
Tel No: +1 (671) 646-5227 or 5228 Fax No: +1 (671) 646-5226
Website: http://www.guamhealthpartners.com

Frances. Bill 101 7/20/09

Support of Bill 101

From: **Robert Haddock** (robhad@yahoo.com)
Sent: Fri 7/17/09 11:03 AM
To: Sen. Frank Aguon (fbaguon.guam@hotmail.com); Dr. Judith Guthertz (judiguthertz@pticom.com); Sen. Rory J. Respicio (roryforguam@gmail.com)

Honorable Frank B. Aguon, Jr.
Ste. 701A, DNA Bldg.
238 Archbishop Flores St.
Hagåtña, Guam 96910

RE: Letter in Support of Bill 101 (An act to amend 90105 of Chapter 90, Title 10, Guam Code Annotated; relative to smoking within 20 feet of a public place where smoking is prohibited)

Dear Senator Aguon:

Because there are no safe levels of secondhand tobacco smoke (SHS), I strongly support Bill 101, an act to amend 90105 of Chapter 90, Title 10, Guam Code Annotated; relative to smoking within 20 feet of a public place where smoking is prohibited.

Promoting tobacco-free living is one of the key goals of the Guam Comprehensive Cancer Control Coalition of which I am a member. A causal association has been established between second-hand tobacco smoke and lung cancer and it has been shown that SHS promotes tumor angiogenesis and growth. [1,2] Passive smoking is also the third leading but preventable cause of death worldwide. It is associated with an elevated risk of developing acute respiratory diseases, obstructive lung disorders, lung cancer, and cardiovascular disease.[3] Exposure to SHS has also been shown to be a major risk factor for cervical cancer.[4] While all individuals exposed to SHS have a higher risk of lung cancer, it is important to note that persons first exposed before age 25 have a higher lung cancer risk compared to those for whom first exposure occurred after age 25 years.[5]

Unfortunately mere knowledge of the dangers related to smoking is not sufficient to keep young people from smoking and confirms that an educational approach based solely on knowledge and facts is not sufficient to decrease tobacco use.[6] It is important to take into account the image that young people have of tobacco use in prevention strategies and campaigns. The environment in which we live plays a critical role in supporting healthy behaviors and tobacco use by adults in public areas is inconsistent with the healthy, clean environment that we are working to promote. We do not want our children to perceive tobacco as part of a normal, healthy adult life, but that is just the message they get when they see individuals using tobacco in public settings. As responsible members of our community, I believe it is our responsibility to support those of our citizens who have chosen to be nonsmokers but remain vulnerable to tobacco-related damage through involuntary exposure to second hand smoking.

Because there are no safe levels of secondhand smoke, I commend and support Senators B.J. Cruz, Judith Guthertz and Rory Respicio for their introduction of Bill 101. It is my belief that this bill will strengthen Guam 's current smoke-free law and further protect our people from the ravages of tobacco-related diseases.

Sincerely,

Robert L. Haddock, DVM, MPH

Epidemiologist

References

[1] Boffetta P. Human cancer from environmental pollutants: the epidemiological evidence. *Mutat Res.* 2006 Sep 28;608(2):157-62.

[2] Zhu BQ, Heeschen C, Sievers RE, Karliner JS, Parmley WW, Glantz SA, Cooke JP. Second hand smoke stimulates tumor angiogensis and growth. *Cancer Cell.* 2003 Sep;4(3):191-6

[3] Raupach T, Radon K, Nowak D, Andreas S. Passive smoking-health consequences and exposure prevention. *Pneumologie.* 2008 Jan;62(1):44-50.

[4] Tsai HT, Tsai YM, Yang SF, Wu KY, Chuang HY, Wu TN, Ho CK, Lin CC, Kuo YS, Wu MT. Lifetime cigarette smoke and second-hand smoke and cervical intraepithelial neoplasm-a

community-based case-control study. *Gynecol Oncol.* 2007 Apr;105(1):181-8.

[5]Asomaning K, Miller DP, Liu G, Wain JC, Lynch TJ, Su L, Christiani DC. Second hand smoke, age of exposure and lung cancer risk. *Lung Cancer.* 2008 Jul;61(1):13-20.

[6] Michaud C, Saraiva I, Henry Y, Dodane M. Tobacco: knowledge, reasoning and opinion of high school students in Doubs . Reflections on prevention. *Sante Publique.* 2003 Mar;15(1):69-78.

RECEIVED
ACM
7/22/09
2pm

July 20, 2009

Honorable Frank B. Aguon, Jr.
238 Archbishop Flores Street
Suite 701A, DNA Bldg.
Hagatna, Guam 96910

RE: Letter in Support of Bill 101 (An act to amend 90105 of Chapter 90, Title 10, Guam Code Annotated; relative to smoking within 20 feet of a public place where smoking prohibited.)

Hafa Adai Senator Aguon,

As you may know, the American Cancer Society's mission is to eliminate cancer as a major health problem by preventing cancer, saving lives and diminishing suffering from cancer, through research, education, advocacy and service. In our community, we work to educate our residents about cancer, its causes, how to prevent certain types of cancers and how to deal with the disease. Given the work we do in tobacco control, we are concerned about the effects of smoking on our community and support the passage of Bill 101 (An act to amend 90105 of Chapter 90, Title 10, Guam Code Annotated; relative to smoking within 20 feet of a public place where smoking is prohibited).

Most everyone is familiar with the dangers of smoking. The ill-effects of tobacco use have been linked to diseases and ailments including cancer, heart disease, high blood pressure and diabetes. However, not everyone may know about the dangers of secondhand smoke, also known as environmental tobacco smoke (ETS).

ETS is a mixture of 2 forms of smoke that comes from burning tobacco products: **sidestream smoke**, smoke that comes from a lighted tobacco product and **mainstream smoke**, smoke that is exhaled by a smoker. When non-smokers are exposed to secondhand smoke it is called *involuntary smoking* or *passive smoking.* Most importantly, non-smokers who breathe in secondhand smoke take in nicotine and other toxic chemicals just like smokers do. The more secondhand smoke a person is exposed to, the higher the level of these harmful chemicals in their bodies.

ETS is so dangerous that the US Environmental Protection Agency (EPA), the US National Toxicology Program and the International Agency for Research of Cancer (IARC), a branch of the World Health Organization have all classified secondhand smoke as a "known human carcinogen" (cancer causing agent).

Because there are no safe levels of secondhand smoke, Bill 101, if passed will strengthen Guam's current smoke-free law and help to further protect people from tobacco-related diseases. Bill 101 will provide assurance that non-smoker's rights are preserved and clean air is available to all.

As a member of an organization that works to ensure a cancer-free world for future generations, I can see the value of Bill 101 in our community and hope you and your colleagues will consider the merits of Bill 101.

Sincerely,

American Cancer Society – Guam Field Office

Marisha Artero
Community Manager – Health Initiatives

July 20, 2009

Honorable Frank B. Aguon, Jr.

Chairman, Committee on Economic Development,

Health & Human Services, and Judiciary

30th Guam Legislature
Ste. 701A, DNA Bldg.
238 Archbishop Flores St.
Hagåtña, Guam 96910

RE: Letter in Support of Bill 101 (An act to amend 90105 of Chapter 90, Title 10, Guam Code Annotated; relative to smoking within 20 feet of a public place where smoking is prohibited)

Dear Senator Aguon,

Hafa Adai! I am writing in strong support of Bill 101 (An act to amend 90105 of Chapter 90, Title 10, Guam Code Annotated; relative to smoking within 20 feet of a public place where smoking is prohibited). I am a member of the Guam Comprehensive Cancer Control Coalition (Cancer Coalition) and resident of Guam. One of our coalition's key goals is promoting tobacco-free living. While we have worked diligently to promote a tobacco-free lifestyle, tobacco use remains the major preventable risk factor for poor health. The ill-effects of tobacco use have been strongly linked to diseases and ailments including cancer, heart disease, high blood pressure and diabetes.

Unfortunately, I know from personal experience the tragedy that tobacco use has not only on individuals, but also on families. My husband, James, was a long time smoker and died less than 8 months ago at age 59 from the devastating effects of lung cancer. He began smoking as a teenager, and in spite of all his efforts to quit and our family's encouragement, he was never fully successful. Sadly, it wasn't until he was diagnosed with lung cancer in May 2008 that he was able to quit fully, much too late to save his life. Because of tobacco use, my family is now without my husband's love, support and guidance. Tobacco use affected our family in more ways than one. Like his father, our son also began smoking in his twenties. Thankfully, unlike his Dad, he was able to successfully quit several years ago.

The only time my husband was ever able to quit smoking for short spurts, was when we would travel to California, where the laws are totally supportive of smoke-free environments. I believe that if we support and pass laws such as Bill 101, we will be positively changing Guam's environment to consistently reinforce the mindset that tobacco use is unhealthy not only for the smoker, but also for non-smokers.

The environment in which we live plays a critical role in supporting healthy behaviors. Tobacco use by adults in public areas is inconsistent with the healthy, clean environment that coalition members are working to promote. We do not want our children to perceive tobacco as part of a normal, healthy adult life, but that is just the message they get when they see adults using tobacco in those settings.

Because there are no safe levels of secondhand smoke, Bill 101, if passed will strengthen Guam's current smoke-free law and help to further protect people from tobacco-related diseases. Bill 101 will also provide assurance that non-smoker's rights are preserved and clean air is available to all. I commend Senators B.J. Cruz, Judith Guthertz and Rory Respicio for their continued leadership for our island's health.

Si Yu'os ma'ase,

Angelina Garrido Mummert

P. O. Box 4905

Hagatna, Guam 96932

July 29, 2009

Honorable Frank B. Aguon, Jr.
Senator
30th Guam Legislature
Chairman, Committee on Economic Development,
Health and Human Services, and Judiciary
Ste. 701A, DNA Bldg.
238 Archbishop Flores St.
Hagåtña, Guam 96910
Ph.: (671) 969-1495/6
Fax: (671) 969-1497

Senator Aguon,

I personally support Bill No. 101 An act to *amend* §90105 of Chapter 90, Title 10, Guam Code Annotated; relative to smoking within twenty (20) feet of an entrance of a public place where smoking is prohibited.

We need to implement at least 20 feet distance of not smoking from building entrance(s) because exposure to outdoor secondhand smoke is detrimental to health. If possible, it would be more better if the bill will follow the good example shown by the legislature office of implementing a 50 feet distance of not smoking in their building or better more is to have a tobacco free campus.

The scientific justification for developing restrictions or policies relevant to exposure to outdoor secondhand smoke was developed by James Repace, a well known researcher and scientific consultant on all types of environmental tobacco smoke, who said, **"Not doing so may expose non-smokers to levels of environmental tobacco smoke as high or higher than received indoor spaces where smoking is unrestricted."**(Banning Outdoor Smoking is Scientifically Justifiable, Tobacco Control Digest, March 2000).

In a Stanford University study in 2007 found that levels of exposure to secondhand smoke outdoors can be comparable to the levels of exposure indoors.

SECOND HAND SMOKE IS AN OUTDOOR HAZARD

- Many nonsmokers exposed to outdoor tobacco smoke suffer immediate symptoms including breathing difficulties, eye irritation, headache, nausea, and asthma attacks.

- Individual cigarettes are sources of air pollution. Smoking in groups tends to saturate a local area with tobacco smoke and exposes those who come into contact with it with high levels of airborne carcinogens.[1]

- Failure to ban smoking in outdoor venues may expose nonsmokers to levels of secondhand smoke as high or higher than received in indoor spaces where smoking is unrestricted.[2]

SECOND HAND SMOKE: A PROVEN KILLER

- The Environmental Protection Agency categorizes SHS as a known human carcinogen, placing it in the most dangerous category, reserved for substances including radon, benzene, and asbestos.

SMOKE-FREE POLICIES REDUCE SMOKING

- In addition to protecting public health, other positive results of smoke-free policies include encouraging smokers to become nonsmokers; reducing the number of cigarettes smoked by employees who continue to smoke; and helping former smokers remain smoke-free.[3]

RIGHTS AND CHOICES

- U.S. Courts have repeatedly declared that ***there is no legal "right to smoke"*** -- smoking is not a protected activity under the U.S. Constitution.

- **Government agencies, and business owners as well as landlords in private industry, have a legal right to establish reasonable safety policies for their property, including no-smoking policies.** To abide by such a policy, a person who is smoking may refrain from smoking, step to an unpopulated area to smoke or choose to become a nonsmoker. On the other hand, a nonsmoker, a smoker who is trying to quit smoking, or parents with children cannot avoid smoke-filled air at entrances of public and private buildings where they do business.

Yours truly,

Francis Epres
Resident of Yigo

---

[1] Repace, James. "Banning Outdoor Smoking is Scientifically Justifiable." Tobacco Control (March 2000)
[2] Ibid

[3] Moskowitz, Joel M.; Zihua Lin and Ester S. Hudes. "The Impact of Workplace Smoking Ordinances in California on Smoking Cessation." *American Journal of Public Health* 90 (2000): 757-761.

Written testimony in support of Bill 101

An act to *amend* §90105 of Chapter 90, Title 10, Guam Code Annotated; relative to smoking within twenty (20) feet of an entrance of a public place where smoking is prohibited. *B.J.F. Cruz / J.P. Guthertz, DPA / R.J. Respicio*

By Maria Teresa M Bondoc, MD, DPSP, CPC
Member, Comprehensive Cancer Coalition of Guam

July 29, 2009

I wish to commend the efforts of all concerned for proposing this initiative, and would like to support this Bill.

As far as my knowledge in medicine and pathology, smoking has far-reaching effects,

1) regardless of smoking source (primary vs. secondary smoking)
2) regardless of extent of involvement (from 1 affected cell to single organ system to multi-system organs)
3) regardless of type of tobacco or nicotine source (oral, inhalation, topical patches)
4) regardless of age (starting from fetus to young adults to immunocompromised elderly)
5) regardless of quit time (effects manifest even after 10 years of quitting smoking).

The bill will increase awareness to the public how secondary smoking, with increased awareness to distance, is significantly affecting the other members in the community. Many community members are not aware, even the well-intentioned, that cigarette smoke chemicals actually clings to garments and places. When cigarette smoke adheres to public or private places, the effects are:

a) It triggers asthma and reactive airway disorders to anyone reacting to it. The young children with narrower bronchial airways are the ones most susceptible of getting hospitalized. Just one day of hospitalization (which includes professional fees, registration fees, medications, labs, chest Xrays, and hospital meals) costs more than $1,000. Subsequent beddays in the hospital costs not lower than $500 per day.

   If hospitalization is covered by insurance, whether private or Medicare/Medicaid, the costs will have an effect on subsequent premium payment or taxes for the following year.

   If hospitalization is not covered by any form of insurance, then the hospital suffers from the inability of the patients to pay for their treatment in a timely manner.

   Stopping the triggering factor will also put a stop in a vicious cycle of unnecessary waste of finance and hospital usage.

b) It aggravates pre-existing medical conditions of those pass by the same places where smokers smoke.

   For those with chronic obstructive pulmonary diseases, or COPD, this triggers an exacerbation, which usually leads to hospitalization. A COPD patient cannot usually be treated with ordinary inhalers used at home. When exacerbated, they use a multiple number of medicines to subside, requiring hospitalization. Many eventually develop into either respiratory failure or heart failure if exacerbation is not stopped in a timely fashion.

   For those with cancer, it doesn't matter what part of their body, the cigarette smoke chemicals are proven carcinogenic and could aggravate their cancer status. Cancer

alone costs exuberant amount of money, with one chemotherapy averaging $5,000, not counting the amount of off-island travels, different specialists professional fees, and hospitalizations. One cancer patient could spend tens to hundreds of thousands of dollars without guarantee of cure. If all expenses for their treatment would be shouldered by insurers, the premiums will continue to rocket higher each year.

For those with heart ailments, the cigarette smoke causes vasoconstriction, aggravating hypertension, compromising oxygen supply, and could cause heart attacks, repeat heart attacks, or even stroke if person is unaware of the increasing blood pressure caused by secondary smoking. Again, Guam does not have a medical facility which can provide the increasing demand for cardiac by-pass for compromised heart patients. Millions of dollars are spent for patients flying off-island because they have compromised heart vascular status.

Even with a 20-ft distance away from public entrances, the enormous effect of smoking is will not be well-delivered. The public may have the misconception that a 20-ft distance puts them in a safe place. It is no different from a leaking gas pump, a leaking anesthesia tank, or a leaking factory gas. The air still travels the chemicals. However, the initiative would start making people aware that distance really matters.

I support this bill to, hopefully, increase public awareness. The implementation is very significant in producing the desired effect.

July 29, 2009

Honorable Frank B. Aguon, Jr.
Ste. 701A, DNA Bldg.
238 Archbishop Flores St.
Hagåtña, Guam 96910

RE: Letter in Support of Bill 101 (An act to amend 90105 of Chapter 90, Title 10, Guam Code Annotated; relative to smoking within 20 feet of a public place where smoking is prohibited)

Dear Senator Aguon,

Hafa Adai! My family and I strongly support Bill 101 (An act to amend 90105 of Chapter 90, Title 10, Guam Code Annotated; relative to smoking within 20 feet of a public place where smoking is prohibited).

In 1997, I lost my father to colon cancer. He was 64. Thankfully his illness was short-lived, preventing him from experiencing the lengthy suffering faced by many victims of cancer. One of the known risk factors for colon cancer is smoking – an addiction which my father fell victim to at the young age of 14 years. After 48 years he was finally able to kick the habit, living smoke-free for two years before his death. Unfortunately, in those 48 years of smoking he also exposed his wife, family of 12 children, and several grandchildren to second hand smoke on a regular basis.

Now, as a mother of two and a contributing member of our community, I do my best to promote a tobacco-free lifestyle, serving as a role model for my children and teaching them about the health risks related to tobacco use, which include cancer, heart disease, high blood pressure and diabetes. The environment in which we live plays a critical role in supporting healthy behaviors. Tobacco use by adults in public areas is inconsistent with the healthy, clean environment that my husband & I are working to promote. We do not want our children to perceive tobacco as part of a normal, healthy adult life, but that is just the message they get when they see individuals using tobacco, particularly at the front entrances of their school campuses. Furthermore, as responsible members of our community, it is our role to advocate for nonsmokers on Guam who form the majority of our population, and who, despite having chosen to be tobacco-free, remain vulnerable to tobacco-related damage through involuntary exposure to second hand smoke.

Because there are no safe levels of secondhand smoke, Bill 101, if passed will strengthen Guam's current smoke-free law and help to further protect people from tobacco-related diseases. Bill 101 will provide assurance that non-smoker's rights are preserved and clean air is available to all. We commend Senators B.J. Cruz, Judith Guthertz and Rory Respicio for their continued leadership for our island's health.

Thank you,

Cerina Y. Mariano
Post Office Box 26670
Barrigada, GU 96921
cerina.mariano@gmail.com

B.101

Honorable Frank B. Aguon, Jr.
Ste. 701A, DNA Bldg.
238 Archbishop Flores St.
Hagåtña, Guam 96910

RE: Letter in Support of Bill 101 (An act to amend 90105 of Chapter 90, Title 10, Guam Code Annotated; relative to smoking within 20 feet of a public place where smoking is prohibited)

Dear Senator Aguon,

Hafa Adai! As a member of the Guam Comprehensive Cancer Control Coalition (Cancer Coalition) and resident of Guam, I strongly support Bill 101 (An act to amend 90105 of Chapter 90, Title 10, Guam Code Annotated; relative to smoking within 20 feet of a public place where smoking is prohibited).

Promoting tobacco-free living is one of the key goals of our Cancer Coalition. While we have worked diligently to promote a tobacco-free lifestyle, tobacco remains as the major lifestyle-related risk factor for poor health. The ill-effects of tobacco use have been linked to diseases and ailments including cancer, heart disease, high blood pressure and diabetes.

The environment in which we live plays a critical role in supporting healthy behaviors. Tobacco use by adults in public areas is inconsistent with the healthy, clean environment that we are working to promote. We do not want our children to perceive tobacco as part of a normal, healthy adult life, but that is just the message they get when they see individuals using tobacco in those settings. Furthermore, as responsible members of our community, it is our role to advocate for nonsmokers on Guam who form the majority of our population, and who, despite having chosen to be tobacco-free, remain vulnerable to tobacco-related damage through involuntary exposure to second hand smoke.

Because there are no safe levels of secondhand smoke, Bill 101, if passed will strengthen Guam's current smoke-free law and help to further protect people from tobacco-related diseases. Bill 101 will provide assurance that non-smoker's rights are preserved and clean air is available to all. I commend Senators B.J. Cruz, Judith Guthertz and Rory Respicio for their continued leadership for our island's health.

Thank you,

Rebecca J. Talon, CTR
Guam Cancer Registry
University of Guam Cancer Research Center
#7 Dean's Circle, UOG Station
Mangilao, Guam 96923
Tel #: 735- 2989/88
Fax: 734-2990
E-mail: rtalon@uguam.uog.edu

GOVERNMENT OF GUAM

DEPARTMENT OF PUBLIC HEALTH AND SOCIAL SERVICES
DIPATTAMENTON SALUT PUPBLEKO YAN SETBISION SUSIAT
#123 Chalan Kareta
Mangilao, Guam 96913-6304

Felix P. Camacho
Governor

Michael W. Cruz, M.D.
Lieutenant Governor

J. Peter Roberto, ACSW
Director

JUL 28 2009

Honorable Frank B. Aguon, Jr.
Ste. 701A, DNA Bldg.
238 Archbishop Flores St.
Hagåtña, Guam 96910

RE: Letter in Support of Bill 101 (An act to amend 90105 of Chapter 90, Title 10, Guam Code Annotated; relative to smoking within 20 feet of a public place where smoking is prohibited).

Dear Senator Aguon:

Hafa Adai! The Department of Public Health and Social Services strongly support Bill 101 (An act to amend 90105 of Chapter 90, Title 10, Guam Code Annotated; relative to smoking within 20 feet of a public place where smoking is prohibited).

We recognize that the major burden to health on Guam arises from lifestyle-related diseases, and that the major lifestyle-related risk factor for poor health is tobacco use. Further, we are aware of the large and growing body of scientific evidence confirming the danger of second hand smoke and its causative role in heart disease, cancer, lung disease, and Sudden Infant Death Syndrome.

As the state health agency, it is our duty to advocate for the smoke-free Guam. Non smokers currently form the majority of our population, and who, despite having chosen to be tobacco-free, remain vulnerable to tobacco-related damage through involuntary exposure to second hand smoke. I have attached the Surgeon General's Executive Summary for your perusal.

Bill 101, if passed, will strengthen our current smoke-free law, help to further protect our people from tobacco-related harm, and will better ensure that Guam' non-smokers' right to a safe environment and clean air is preserved. We commend Senators B.J. Cruz, Judith Guthertz and Rory Respicio for their continued leadership for our island's health. ***Si Yu'os Ma'ase.***

Sincerely,

J. PETER ROBERTO, ACSW
Director

Telephone No.: 1.671.735.7289 • Fax No.: 1.671.734.2066

The Health Consequences of Involuntary Exposure to Tobacco Smoke

A Report of the Surgeon General

Executive Summary

Department of Health and Human Services

The Health Consequences of Involuntary Exposure to Tobacco Smoke

A Report of the Surgeon General

Executive Summary

2006

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Office of the Surgeon General
Rockville, MD

Centers for Disease Control and Prevention
Coordinating Center for Health Promotion
National Center for Chronic Disease Prevention and Health Promotion
Office on Smoking and Health

Suggested Citation

U.S. Department of Health and Human Services. *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General—Executive Summary.* U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2006

To download copies of this document from the Web:

Go to http://www.cdc.gov/tobacco

To order single copies of this document:

Call toll free 1-800-CDC-INFO (1-800-232-4636). Information is available in English and Spanish, 24 hours/day, 7 days/week.
For text telephone for hearing impaired, dial 1-888-232-6348.

For more information about this document:

E-mail tobaccoinfo@cdc.gov.

Copies of the full report (stock no. 017-024-01685-3) may be purchased from:

Superintendent of Documents
U.S. Government Printing Office
P.O. Box 371954
Pittsburgh, PA 15250-7954
Toll-free: 1-866-512-1800
Web site: http://bookstore.gpo.gov.

Message from Michael O. Leavitt

Secretary of Health and Human Services

This Surgeon General's report returns to the topic of the health effects of involuntary exposure to tobacco smoke. The last comprehensive review of this evidence by the Department of Health and Human Services (DHHS) was in the 1986 Surgeon General's report, *The Health Consequences of Involuntary Smoking*, published 20 years ago this year. This new report updates the evidence of the harmful effects of involuntary exposure to tobacco smoke. This large body of research findings is captured in an accompanying dynamic database that profiles key epidemiologic findings, and allows the evidence on health effects of exposure to tobacco smoke to be synthesized and updated (following the format of the 2004 report, *The Health Consequences of Smoking*). The database enables users to explore the data and studies supporting the conclusions in the report. The database is available on the Web site of the Centers for Disease Control and Prevention (CDC) at http://www.cdc.gov/tobacco. I am grateful to the leadership of the Surgeon General, CDC's Office on Smoking and Health, and all of the contributors for preparing this important report and bringing this topic to the forefront once again.

Secondhand smoke, also known as environmental tobacco smoke, is a mixture of the smoke given off by the burning end of tobacco products (sidestream smoke) and the mainstream smoke exhaled by smokers. People are exposed to secondhand smoke at home, in the workplace, and in other public places such as bars, restaurants, and recreation venues. It is harmful and hazardous to the health of the general public and particularly dangerous to children. It increases the risk of serious respiratory problems in children, such as a greater number and severity of asthma attacks and lower respiratory tract infections, and increases the risk for middle ear infections. It is also a known human carcinogen (cancer-causing agent). Inhaling secondhand smoke causes lung cancer and coronary heart disease in nonsmoking adults.

We have made great progress since the late 1980s in reducing the involuntary exposure of nonsmokers in this country to secondhand smoke. The proportion of nonsmokers aged 4 and older with a blood cotinine level (a metabolite of nicotine) indicating exposure has declined from 88 percent in 1988–1991 down to 43 percent in 2001–2002, a decline that exceeds the *Healthy People 2010* objective for this measure. Despite the great progress that has been made, involuntary exposure to secondhand smoke remains a serious public health hazard that can be prevented by making homes, workplaces, and public places completely smoke-free. As of the year 2000, more than 126 million residents of the United States aged 3 or older still are estimated to be exposed to secondhand smoke. Smoke-free environments are the most effective method for reducing exposures. *Healthy People 2010* objectives address this issue and seek optimal protection of nonsmokers through policies, regulations, and laws requiring smoke-free environments in all schools, workplaces, and public places.

Foreword

This twenty-ninth report of the Surgeon General documents the serious and deadly health effects of involuntary exposure to tobacco smoke. Secondhand smoke is a major cause of disease, including lung cancer and coronary heart disease, in healthy nonsmokers.

In 2005, it was estimated that exposure to secondhand smoke kills more than 3,000 adult nonsmokers from lung cancer, approximately 46,000 from coronary heart disease, and an estimated 430 newborns from sudden infant death syndrome. In addition, secondhand smoke causes other respiratory problems in nonsmokers such as coughing, phlegm, and reduced lung function. According to the CDC's National Health Interview Survey in 2000, more than 80 percent of the respondents aged 18 years or older believe that secondhand smoke is harmful and nonsmokers should be protected in their workplaces.

Components of chemical compounds in secondhand smoke, including nicotine, carbon monoxide, and tobacco-specific carcinogens, can be detected in body fluids of exposed nonsmokers. These exposures can be controlled. In 2005, CDC released the *Third National Report on Human Exposure to Environmental Chemicals*, which found that the median cotinine level (a metabolite of nicotine) in nonsmokers had decreased across the life stages: by 68 percent in children, 69 percent in adolescents, and 75 percent in adults, when samples collected between 1999 and 2002 were compared with samples collected a decade earlier. These dramatic declines are further evidence that smoking restrictions in public places and workplaces are helping to ensure a healthier life for all people in the United States.

However, too many people continue to be exposed, especially children. The recent data indicate that median cotinine levels in children are more than twice those of adults, and non-Hispanic blacks have levels that are more than twice as high as those of Mexican Americans and non-Hispanic whites. These disparities need to be better understood and addressed.

Research reviewed in this report indicates that smoke-free policies are the most economic and effective approach for providing protection from exposure to secondhand smoke. But do they provide the greatest health impact. Separating smokers and nonsmokers in the same airspace is not effective, nor is air cleaning or a greater exchange of indoor with outdoor air. Additionally, having separately ventilated areas for smoking may not offer a satisfactory solution to reducing workplace exposures. Policies prohibiting smoking in the workplace have multiple benefits. Besides reducing exposure of nonsmokers to secondhand smoke, these policies reduce tobacco use by smokers and change public attitudes about tobacco use from acceptable to unacceptable.

Research indicates that the progressive restriction of smoking in the United States to protect nonsmokers has had the additional health impact of reducing active smoking. In November 2005, CDC's Tobacco-Free Campus policy took full effect in all facilities owned by CDC in the Atlanta area. As the Director of the nation's leading health promotion and disease prevention agency, I am proud to support this effort. With this commitment, CDC continues to protect the health and safety of all of its employees and serves as a role model for workplaces everywhere.

Julie Louise Gerberding, M.D., M.P.H.
Director
Centers for Disease Control and Prevention
and
Administrator
Agency for Toxic Substances and Disease Registry

Preface

from the Surgeon General,
U.S. Department of Health and Human Services

Twenty years ago when Dr. C. Everett Koop released the Surgeon General's report, *The Health Consequences of Involuntary Smoking,* it was the first Surgeon General's report to conclude that involuntary exposure of nonsmokers to tobacco smoke causes disease. The topic of involuntary exposure of nonsmokers to secondhand smoke was first considered in Surgeon General Jesse Steinfeld's 1972 report, and by 1986, the causal linkage between inhaling secondhand smoke and the risk for lung cancer was clear. By then, there was also abundant evidence of adverse effects of smoking by parents on their children.

Today, massive and conclusive scientific evidence documents adverse effects of involuntary smoking on children and adults, including cancer and cardiovascular diseases in adults, and adverse respiratory effects in both children and adults. This 2006 report of the Surgeon General updates the 1986 report, *The Health Consequences of Involuntary Smoking,* and provides a detailed review of the epidemiologic evidence on the health effects of involuntary exposure to tobacco smoke. This new report also uses the revised standard language of causality that was applied in the 2004 Surgeon General's report, *The Health Consequences of Smoking.*

Secondhand smoke is similar to the mainstream smoke inhaled by the smoker in that it is a complex mixture containing many chemicals (including formaldehyde, cyanide, carbon monoxide, ammonia, and nicotine), many of which are known carcinogens. Exposure to secondhand smoke causes excess deaths in the U.S. population from lung cancer and cardiac related illnesses. Fortunately, exposures of adults are declining as smoking becomes increasingly restricted in workplaces and public places. Unfortunately, children continue to be exposed in their homes by the smoking of their parents and other adults. This exposure leads to unnecessary cases of bronchitis, pneumonia and worsened asthma. Among children younger than 18 years of age, an estimated 22 percent are exposed to secondhand smoke in their homes, with estimates ranging from 11.7 percent in Utah to 34.2 percent in Kentucky.

As this report documents, exposure to secondhand smoke remains an alarming public health hazard. Approximately 60 percent of nonsmokers in the United States have biologic evidence of exposure to secondhand smoke. Yet compared with data reviewed in the 1986 report, I am encouraged by the progress that has been made in reducing involuntary exposure in many workplaces, restaurants, and other public places. These changes are most likely the major contributing factors to the more than 75 percent reduction in serum cotinine levels that researchers have observed from 1988 to 1991. However, more than 126 million nonsmokers are still exposed. We now have substantial evidence on the efficacy of different approaches to control exposure to secondhand smoke. Restrictions on smoking can control exposures effectively, but technical approaches involving air cleaning or a greater exchange of indoor with outdoor air cannot. Consequently, nonsmokers need protection through the restriction of smoking in public places and workplaces and by a voluntary adherence to policies at home, particularly to eliminate exposures of children. Since the release of the 1986 Surgeon General's report, the public's attitude and social norms toward secondhand smoke exposure have changed significantly—a direct result of the growing body of scientific evidence on the health effects of exposure to secondhand smoke that is summarized in this report.

Finally, clinicians should routinely ask about secondhand smoke exposure, particularly in susceptible groups or when a child has had an illness caused by secondhand smoke, such as pneumonia. Because of the high levels of exposure among young children, their exposure should be considered a significant pediatric issue. Additionally, exposure to secondhand smoke poses significant risks for people with lung and heart disease. The large body of evidence documenting that secondhand smoke exposures produce substantial and immediate effects on the cardiovascular system indicates that even brief exposures could pose significant acute risks to older adults or to others at high risk for cardiovascular disease. Those caring for relatives with heart disease should be advised not to smoke in the presence of the sick relative.

An environment free of involuntary exposure to secondhand smoke should remain an important national priority in order to reach the *Healthy People 2010* objectives.

Richard Carmona, M.D., M.P.H., F.A.C.S.
Surgeon General

Executive Summary

The topic of passive or involuntary smoking was first addressed in the 1972 U.S. Surgeon General's report (*The Health Consequences of Smoking*, U.S. Department of Health, Education, and Welfare [USDHEW] 1972), only eight years after the first Surgeon General's report on the health consequences of active smoking (USDHEW 1964). Surgeon General Dr. Jesse Steinfeld had raised concerns about this topic, leading to its inclusion in that report. According to the 1972 report, nonsmokers inhale the mixture of sidestream smoke given off by a smoldering cigarette and mainstream smoke exhaled by a smoker, a mixture now referred to as "secondhand smoke" or "environmental tobacco smoke." Cited experimental studies showed that smoking in enclosed spaces could lead to high levels of cigarette smoke components in the air. For carbon monoxide (CO) specifically, levels in enclosed spaces could exceed levels then permitted in outdoor air. The studies supported a conclusion that "an atmosphere contaminated with tobacco smoke can contribute to the discomfort of many individuals" (USDHEW 1972, p. 7). The possibility that CO emitted from cigarettes could harm persons with chronic heart or lung disease was also mentioned.

Secondhand tobacco smoke was then addressed in greater depth in Chapter 4 (Involuntary Smoking) of the 1975 Surgeon General's report, *The Health Consequences of Smoking* (USDHEW 1975). The chapter noted that involuntary smoking takes place when nonsmokers inhale both sidestream and exhaled mainstream smoke and that this "smoking" is "involuntary" when "the exposure occurs as an unavoidable consequence of breathing in a smoke-filled environment" (p. 87). The report covered exposures and potential health consequences of involuntary smoking, and the researchers concluded that smoking on buses and airplanes was annoying to nonsmokers and that involuntary smoking had potentially adverse consequences for persons with heart and lung diseases. Two studies on nicotine concentrations in nonsmokers raised concerns about nicotine as a contributing factor to atherosclerotic cardiovascular disease in nonsmokers.

The 1979 Surgeon General's report, *Smoking and Health: A Report of the Surgeon General* (USDHEW 1979), also contained a chapter entitled "Involuntary Smoking." The chapter stressed that "attention to involuntary smoking is of recent vintage, and only limited information regarding the health effects of such exposure upon the nonsmoker is available" (p. 11–35). The chapter concluded with recommendations for research including epidemiologic and clinical studies. The 1982 Surgeon General's report specifically addressed smoking and cancer (U.S. Department of Health and Human Services [USDHHS] 1982). By 1982, there were three published epidemiologic studies on involuntary smoking and lung cancer, and the 1982 Surgeon General's report included a brief chapter on this topic. That chapter commented on the methodologic difficulties inherent in such studies, including exposure assessment, the lengthy interval during which exposures are likely to be relevant, and accounting for exposures to other carcinogens. Nonetheless, the report concluded that "Although the currently available evidence is not sufficient to conclude that passive or involuntary smoking causes lung cancer in nonsmokers, the evidence does raise concern about a possible serious public health problem" (p. 251).

Involuntary smoking was also reviewed in the 1984 report, which focused on chronic obstructive pulmonary disease and smoking (USDHHS 1984). Chapter 7 (Passive Smoking) of that report included a comprehensive review of the mounting information on smoking by parents and the effects on respiratory health of their children, data on irritation of the eye, and the more limited evidence on pulmonary effects of involuntary smoking on adults. The chapter began with a compilation of measurements of tobacco smoke components in various indoor environments. The extent of the data had increased substantially since 1972. By 1984, the data included measurements of more specific indicators such as acrolein and nicotine, and less specific indicators such as particulate matter (PM), nitrogen oxides, and CO. The report reviewed new evidence on exposures of nonsmokers using biomarkers, with substantial information on levels of cotinine, a major nicotine metabolite. The report anticipated future conclusions with regard to respiratory effects of parental smoking on child respiratory health (Table 1.1).

Involuntary smoking was the topic for the entire 1986 Surgeon General's report, *The Health Consequences of Involuntary Smoking* (USDHHS 1986). In its 359 pages, the report covered the full breadth of the topic, addressing toxicology and dosimetry of tobacco smoke; the relevant evidence on active smoking;

Table 1.1 Conclusions from previous Surgeon General's reports on the health effects of secondhand smoke exposure

Disease and statement	Surgeon General's report
Coronary heart disease: "The presence of such levels" as found in cigarettes "indicates that the effect of exposure to carbon monoxide may on occasion, depending upon the length of exposure, be sufficient to be harmful to the health of an exposed person. This would be particularly significant for people who are already suffering from. . .coronary heart disease." (p. 7)	1972
Chronic respiratory symptoms (adults): "The presence of such levels" as found in cigarettes "indicates that the effect of exposure to carbon monoxide may on occasion, depending upon the length of exposure, be sufficient to be harmful to the health of an exposed person. This would be particularly significant for people who are already suffering from chronic bronchopulmonary disease. . . ." (p. 7)	1972
Pulmonary function: "Other components of tobacco smoke, such as particulate matter and the oxides of nitrogen, have been shown in various concentrations to affect adversely animal pulmonary. . .function. The extent of the contributions of these substances to illness in humans exposed to the concentrations present in an atmosphere contaminated with tobacco smoke is not presently known." (pp. 7–8)	1972
Asthma: "The limited existing data yield conflicting results concerning the relationship between passive smoke exposure and pulmonary function changes in patients with asthma." (p. 13)	1984
Bronchitis and pneumonia: "The children of smoking parents have an increased prevalence of reported respiratory symptoms, and have an increased frequency of bronchitis and pneumonia early in life." (p. 13)	1984
Pulmonary function (children): "The children of smoking parents appear to have measurable but small differences in tests of pulmonary function when compared with children of nonsmoking parents. The significance of this finding to the future development of lung disease is unknown." (p. 13)	1984
Pulmonary function (adults): ". . .some studies suggest that high levels of involuntary [tobacco] smoke exposure might produce small changes in pulmonary function in normal subjects. . . . Two studies have reported differences in measures of lung function in older populations between subjects chronically exposed to involuntary smoking and those who were not. This difference was not found in a younger and possibly less exposed population." (p. 13)	1984
Acute respiratory infections: "The children of parents who smoke have an increased frequency of a variety of acute respiratory illnesses and infections, including chest illnesses before 2 years of age and physician-diagnosed bronchitis, tracheitis, and laryngitis, when compared with the children of nonsmokers." (p. 13)	1986
Bronchitis and pneumonia: "The children of parents who smoke have an increased frequency of hospitalization for bronchitis and pneumonia during the first year of life when compared with the children of nonsmokers." (p. 13)	1986
Cancers other than lung: "The associations between cancers, other than cancer of the lung, and involuntary smoking require further investigation before a determination can be made about the relationship of involuntary smoking to these cancers." (p. 14)	1986
Cardiovascular disease: "Further studies on the relationship between involuntary smoking and cardiovascular disease are needed in order to determine whether involuntary smoking increases the risk of cardiovascular disease." (p. 14)	1986

Table 1.1 Continued

Disease and statement	Surgeon General's report
Chronic cough and phlegm (children): "Chronic cough and phlegm are more frequent in children whose parents smoke compared with children of nonsmokers." (p. 13)	1986
Chronic obstructive pulmonary disease (COPD): "Healthy adults exposed to environmental tobacco smoke may have small changes on pulmonary function testing, but are unlikely to experience clinically significant deficits in pulmonary function as a result of exposure to environmental tobacco smoke alone." (pp. 13–14)	1986
"The implications of chronic respiratory symptoms for respiratory health as an adult are unknown and deserve further study." (p. 13)	
Lung cancer: "Involuntary smoking can cause lung cancer in nonsmokers." (p. 13)	1986
Middle ear effusions: "A number of studies report that chronic middle ear effusions are more common in young children whose parents smoke than in children of nonsmoking parents." (p. 14)	1986
Pulmonary function (children): "The children of parents who smoke have small differences in tests of pulmonary function when compared with the children of nonsmokers. Although this decrement is insufficient to cause symptoms, the possibility that it may increase susceptibility to chronic obstructive pulmonary disease with exposure to other agents in adult life, e.g., [*sic*] active smoking or occupational exposures, needs investigation." (p. 13)	1986
Other:	
"An atmosphere contaminated with tobacco smoke can contribute to the discomfort of many individuals." (p. 7)	1972
"Cigarette smoke can make a significant, measurable contribution to the level of indoor air pollution at levels of smoking and ventilation that are common in the indoor environment." (p. 13)	1984
"Cigarette smoke in the air can produce an increase in both subjective and objective measures of eye irritation." (p. 13)	1984
"Nonsmokers who report exposure to environmental tobacco smoke have higher levels of urinary cotinine, a metabolite of nicotine, than those who do not report such exposure." (p. 13)	1984
"The simple separation of smokers and nonsmokers within the same air space may reduce, but does not eliminate, the exposure of nonsmokers to environmental tobacco smoke." (p. 13)	1986
"Validated questionnaires are needed for the assessment of recent and remote exposure to environmental tobacco smoke in the home, workplace, and other environments." (p. 14)	1986

Sources: U.S. Department of Health, Education, and Welfare 1972; U.S. Department of Health and Human Services 1984, 1986.

patterns of exposure of nonsmokers to tobacco smoke; the epidemiologic evidence on involuntary smoking and disease risks for infants, children, and adults; and policies to control involuntary exposure to tobacco smoke. That report concluded that involuntary smoking caused lung cancer in lifetime nonsmoking adults and was associated with adverse effects on respiratory health in children. The report also stated that simply separating smokers and nonsmokers within the same airspace reduced but did not eliminate exposure to secondhand smoke. All of these findings are relevant to public health and public policy (Table 1.1). The lung cancer conclusion was based on extensive information already available on the carcinogenicity of active smoking, the qualitative similarities between secondhand and mainstream smoke, the uptake of tobacco smoke components by nonsmokers, and the epidemiologic data on involuntary smoking. The three major conclusions of the report (Table 1.2), led Dr. C. Everett Koop, Surgeon General at the time, to comment in his preface that "the right of smokers to smoke ends where their behavior affects the health and well-being of others; furthermore, it is the smokers' responsibility to ensure that they do not expose nonsmokers to the potential [*sic*] harmful effects of tobacco smoke" (USDHHS 1986, p. xii).

Two other reports published in 1986 also reached the conclusion that involuntary smoking increased the risk for lung cancer. The International Agency for Research on Cancer (IARC) of the World Health Organization concluded that "passive smoking gives rise to some risk of cancer" (IARC 1986, p. 314). In its monograph on tobacco smoking, the agency supported this conclusion on the basis of the characteristics of sidestream and mainstream smoke, the absorption of tobacco smoke materials during an involuntary exposure, and the nature of dose-response relationships for carcinogenesis. In the same year, the National Research Council (NRC) also concluded that involuntary smoking increases the incidence of lung cancer in nonsmokers (NRC 1986). In reaching this conclusion, the NRC report cited the biologic plausibility of the association between exposure to secondhand smoke and lung cancer and the supporting epidemiologic evidence. On the basis of a pooled analysis of the epidemiologic data adjusted for bias, the report concluded that the best estimate for the excess risk of lung cancer in nonsmokers married to smokers was 25 percent, compared with nonsmokers married to nonsmokers. With regard to the effects of involuntary smoking on children, the NRC report commented on the literature linking secondhand smoke exposures from parental smoking to increased risks for respiratory symptoms and infections and to a slightly diminished rate of lung growth.

Since 1986, the conclusions with regard to both the carcinogenicity of secondhand smoke and the adverse effects of parental smoking on the health of children have been echoed and expanded (Table 1.3). In 1992, the U.S. Environmental Protection Agency (EPA) published its risk assessment of secondhand smoke as a carcinogen (USEPA 1992). The agency's evaluation drew on toxicologic information on secondhand smoke and the extensive literature on active smoking. A comprehensive meta-analysis of the 31 epidemiologic studies of secondhand smoke and lung cancer published up to that time was central to the decision to classify secondhand smoke as a group A carcinogen—namely, a known human carcinogen. Estimates of approximately 3,000 U.S. lung cancer deaths per year in nonsmokers were attributed to secondhand smoke. The report also covered other respiratory health effects in children and adults and concluded that involuntary smoking is causally associated with several adverse

Table 1.2 Major conclusions of the 1986 Surgeon General's report, *The Health Consequences of Involuntary Smoking*

1. Involuntary smoking is a cause of disease, including lung cancer, in healthy nonsmokers.
2. The children of parents who smoke compared with the children of nonsmoking parents have an increased frequency of respiratory infections, increased respiratory symptoms, and slightly smaller rates of increase in lung function as the lung matures.
3. The simple separation of smokers and nonsmokers within the same air space may reduce, but does not eliminate, the exposure of nonsmokers to environmental tobacco smoke.

Source: U.S. Department of Health and Human Services 1986, p. 7.

Table 1.3 Selected major reports, other than those of the U.S. Surgeon General, addressing adverse effects from exposure to tobacco smoke

Agency	Publication	Place and date of publication
National Research Council	*Environmental Tobacco Smoke: Measuring Exposures and Assessing Health Effects*	Washington, D.C. United States 1986
International Agency for Research on Cancer (IARC)	*Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans: Tobacco Smoking* (IARC Monograph 38)	Lyon, France 1986
U.S. Environmental Protection Agency (EPA)	*Respiratory Health Effects of Passive Smoking: Lung Cancer and Other Disorders*	Washington, D.C. United States 1992
National Health and Medical Research Council	*The Health Effects of Passive Smoking*	Canberra, Australia 1997
California EPA (Cal/EPA), Office of Environmental Health Hazard Assessment	*Health Effects of Exposure to Environmental Tobacco Smoke*	Sacramento, California United States 1997
Scientific Committee on Tobacco and Health	*Report of the Scientific Committee on Tobacco and Health*	London, United Kingdom 1998
World Health Organization	*International Consultation on Environmental Tobacco Smoke (ETS) and Child Health. Consultation Report*	Geneva, Switzerland 1999
IARC	*Tobacco Smoke and Involuntary Smoking* (IARC Monograph 83)	Lyon, France 2004
Cal/EPA, Office of Environmental Health Hazard Assessment	*Proposed Identification of Environmental Tobacco Smoke as a Toxic Air Contaminant*	Sacramento, California United States 2005

respiratory effects in children. There was also a quantitative risk assessment for the impact of involuntary smoking on childhood asthma and lower respiratory tract infections in young children.

In the decade since the 1992 EPA report, scientific panels continued to evaluate the mounting evidence linking involuntary smoking to adverse health effects (Table 1.3). The most recent was the 2005 report of the California EPA (Cal/EPA 2005). Over time, research has repeatedly affirmed the conclusions of the 1986 Surgeon General's reports and studies have further identified causal associations of involuntary smoking with diseases and other health disorders. The epidemiologic evidence on involuntary smoking has markedly expanded since 1986, as have the data on exposure to tobacco smoke in the many environments where people spend time. An understanding of the mechanisms by which involuntary smoking causes disease has also deepened.

As part of the environmental health hazard assessment, Cal/EPA identified specific health effects causally associated with exposure to secondhand smoke. The agency estimated the annual excess deaths in the United States that are attributable to secondhand smoke exposure for specific disorders: sudden infant death syndrome (SIDS), cardiac-related illnesses (ischemic heart disease), and lung cancer (Cal/EPA 2005). For the excess incidence of other health outcomes, either new estimates were provided or estimates from the 1997 health hazard assessment were used without any revisions (Cal/EPA 1997). Overall, Cal/EPA estimated that about 50,000 excess deaths

result annually from exposure to secondhand smoke (Cal/EPA 2005). Estimated annual excess deaths for the total U.S. population are about 3,400 (a range of 3,423 to 8,866) from lung cancer, 46,000 (a range of 22,700 to 69,600) from cardiac-related illnesses, and 430 from SIDS. The agency also estimated that between 24,300 and 71,900 low birth weight or preterm deliveries, about 202,300 episodes of childhood asthma (new cases and exacerbations), between 150,000 and 300,000 cases of lower respiratory illness in children, and about 789,700 cases of middle ear infections in children occur each year in the United States as a result of exposure to secondhand smoke.

This new 2006 Surgeon General's report returns to the topic of involuntary smoking. The health effects of involuntary smoking have not received comprehensive coverage in this series of reports since 1986. Reports since then have touched on selected aspects of the topic: the 1994 report on tobacco use among young people (USDHHS 1994), the 1998 report on tobacco use among U.S. racial and ethnic minorities (USDHHS 1998), and the 2001 report on women and smoking (USDHHS 2001). As involuntary smoking remains widespread in the United States and elsewhere, the preparation of this report was motivated by the persistence of involuntary smoking as a public health problem and the need to evaluate the substantial new evidence reported since 1986. This report substantially expands the list of topics that were included in the 1986 report. Additional topics include SIDS, developmental effects, and other reproductive effects; heart disease in adults; and cancer sites beyond the lung. For some associations of involuntary smoking with adverse health effects, only a few studies were reviewed in 1986 (e.g., ear disease in children); now, the relevant literature is substantial. Consequently, this report uses meta-analysis to quantitatively summarize evidence as appropriate. Following the approach used in the 2004 report (*The Health Consequences of Smoking*, USDHHS 2004), this 2006 report also systematically evaluates the evidence for causality, judging the extent of the evidence available and then making an inference as to the nature of the association.

Organization of the Report

This twenty-ninth report of the Surgeon General examines the topics of toxicology of secondhand smoke, assessment and prevalence of exposure to secondhand smoke, reproductive and developmental health effects, respiratory effects of exposure to secondhand smoke in children and adults, cancer among adults, cardiovascular diseases, and the control of secondhand smoke exposure.

This introductory chapter (Chapter 1) includes a discussion of the concept of causation and introduces concepts of causality that are used throughout this report; this chapter also summarizes the major conclusions of the report. Chapter 2 (Toxicology of Secondhand Smoke) sets out a foundation for interpreting the observational evidence that is the focus of most of the following chapters. The discussion details the mechanisms that enable tobacco smoke components to injure the respiratory tract and cause nonmalignant and malignant diseases and other adverse effects. Chapter 3 (Assessment of Exposure to Secondhand Smoke) provides a perspective on key factors that determine exposures of people to secondhand smoke in indoor environments, including building designs and operations, atmospheric markers of secondhand smoke, exposure models, and biomarkers of exposure to secondhand smoke. Chapter 4 (Prevalence of Exposure to Secondhand Smoke) summarizes findings that focus on nicotine measurements in the air and cotinine measurements in biologic materials. The chapter includes exposures in the home, workplace, public places, and special populations. Chapter 5 (Reproductive and Developmental Effects from Exposure to Secondhand Smoke) reviews the health effects on reproduction, on infants, and on child development. Chapter 6 (Respiratory Effects in Children from Exposure to Secondhand Smoke) examines the effects of parental smoking on the respiratory health of children. Chapter 7 (Cancer Among Adults from Exposure to Secondhand Smoke) summarizes the evidence on cancer of the lung, breast, nasal sinuses, and the cervix. Chapter 8 (Cardiovascular Diseases from Exposure to Secondhand Smoke) discusses coronary heart disease (CHD), stroke, and subclinical vascular disease. Chapter 9 (Respiratory Effects in Adults from Exposure to Secondhand Smoke) examines odor and irritation, respiratory symptoms, lung function, and respiratory diseases such as asthma and chronic obstructive pulmonary disease. Chapter 10 (Control of Secondhand Smoke Exposure) considers measures used to control exposure to secondhand smoke in public places, including legislation, education, and approaches based on building designs and operations. The report concludes with "A Vision for the Future." Major conclusions of the report were distilled from the chapter conclusions and appear later in this chapter.

Preparation of the Report

This report of the Surgeon General was prepared by the Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion, Coordinating Center for Health Promotion, Centers for Disease Control and Prevention (CDC), and U.S. DHHS. Initial chapters were written by 22 experts who were selected because of their knowledge of a particular topic. The contributions of the initial experts were consolidated into 10 major chapters that were then reviewed by more than 40 peer reviewers. The entire manuscript was then sent to more than 30 scientists and experts who reviewed it for its scientific integrity. After each review cycle, the drafts were revised by the scientific editors on the basis of the experts' comments. Subsequently, the report was reviewed by various institutes and agencies within U.S. DHHS. Publication lags, even short ones, prevent an up-to-the-minute inclusion of all recently published articles and data. Therefore, by the time the public reads this report, there may be additional published studies or data. To provide published information as current as possible, this report includes an Appendix of more recent studies that represent major additions to the literature.

This report is also accompanied by a companion database of key evidence that is accessible through the Internet (http://www.cdc.gov/tobacco). The database includes a uniform description of the studies and results on the health effects of exposure to secondhand smoke that were presented in a format compatible with abstraction into standardized tables. Readers of the report may access these data for additional analyses, tables, or figures.

Definitions and Terminology

The inhalation of tobacco smoke by nonsmokers has been variably referred to as "passive smoking" or "involuntary smoking." Smokers, of course, also inhale secondhand smoke. Cigarette smoke contains both particles and gases generated by the combustion at high temperatures of tobacco, paper, and additives. The smoke inhaled by nonsmokers that contaminates indoor spaces and outdoor environments has often been referred to as "secondhand smoke" or "environmental tobacco smoke." This inhaled smoke is the mixture of sidestream smoke released by the smoldering cigarette and the mainstream smoke that is exhaled by a smoker. Sidestream smoke, generated at lower temperatures and under somewhat different combustion conditions than mainstream smoke, tends to have higher concentrations of many of the toxins found in cigarette smoke (USDHHS 1986). However, it is rapidly diluted as it travels away from the burning cigarette.

Secondhand smoke is an inherently dynamic mixture that changes in characteristics and concentration with the time since it was formed and the distance it has traveled. The smoke particles change in size and composition as gaseous components are volatilized and moisture content changes; gaseous elements of secondhand smoke may be adsorbed onto materials, and particle concentrations drop with both dilution in the air or environment and impaction on surfaces, including the lungs or on the body. Because of its dynamic nature, a specific quantitative definition of secondhand smoke cannot be offered.

This report uses the term secondhand smoke in preference to environmental tobacco smoke, even though the latter may have been used more frequently in previous reports. The descriptor "secondhand" captures the involuntary nature of the exposure, while "environmental" does not. This report also refers to the inhalation of secondhand smoke as involuntary smoking, acknowledging that most nonsmokers do not want to inhale tobacco smoke. The exposure of the fetus to tobacco smoke, whether from active smoking by the mother or from her exposure to secondhand smoke, also constitutes involuntary smoking.

Evidence Evaluation

Following the model of the 1964 report, the Surgeon General's reports on smoking have included comprehensive compilations of the evidence on the health effects of smoking. The evidence is analyzed to identify causal associations between smoking and disease according to enunciated principles, sometimes referred to as the "Surgeon General's criteria" or the "Hill" criteria (after Sir Austin Bradford Hill) for causality (USDHEW 1964; USDHHS 2004). Application of these criteria involves covering all relevant observational and experimental evidence. The criteria, offered in a brief chapter of the 1964 report entitled "Criteria for Judgment," included (1) the consistency of the association, (2) the strength of the association, (3) the specificity of the association, (4) the temporal relationship of the association, and (5) the coherence of the association. Although these criteria have been criticized (e.g., Rothman and Greenland 1998), they have proved useful as a framework for interpreting evidence on smoking and other postulated causes of disease, and for judging whether causality can be inferred.

In the 2004 report of the Surgeon General, *The Health Consequences of Smoking*, the framework for interpreting evidence on smoking and health was revisited in depth for the first time since the 1964 report (USDHHS 2004). The 2004 report provided a four-level hierarchy for interpreting evidence (Table 1.4). The categories acknowledge that evidence can be "suggestive" but not adequate to infer a causal relationship, and also allows for evidence that is "suggestive of no causal relationship." Since the 2004 report, the individual chapter conclusions have consistently used this four-level hierarchy (Table 1.4), but evidence syntheses and other summary statements may use either the term "increased risk" or "cause" to describe instances in which there is sufficient evidence to conclude that active or involuntary smoking causes a disease or condition. This four-level framework also sharply and completely separates conclusions regarding causality from the implications of such conclusions.

That same framework was used in this report on involuntary smoking and health. The criteria dating back to the 1964 Surgeon General's report remain useful as guidelines for evaluating evidence (USDHEW 1964), but they were not intended to be applied strictly or as a "checklist" that needed to be met before the designation of "causal" could be applied to an association. In fact, for involuntary smoking and health, several of the criteria will not be met for some associations. Specificity, referring to a unique exposure-disease relationship (e.g., the association between thalidomide use during pregnancy and unusual birth defects), can be set aside as not relevant, as all of the health effects considered in this report have causes other than involuntary smoking. Associations are considered more likely to be causal as the strength of an association increases because competing explanations become less plausible alternatives. However, based on knowledge of dosimetry and mechanisms of injury and disease causation, the risk is anticipated to be only slightly or modestly increased for some associations of involuntary smoking with disease, such as lung cancer, particularly when the very strong relative risks found for active smokers are compared with those for lifetime nonsmokers. The finding of only a small elevation in risk, as in the

Table 1.4 Four-level hierarchy for classifying the strength of causal inferences based on available evidence

Level 1	Evidence is **sufficient** to infer a causal relationship.
Level 2	Evidence is **suggestive but not sufficient** to infer a causal relationship.
Level 3	Evidence is **inadequate** to infer the presence or absence of a causal relationship (which encompasses evidence that is sparse, of poor quality, or conflicting).
Level 4	Evidence is **suggestive of no causal relationship**.

Source: U.S. Department of Health and Human Services 2004.

example of spousal smoking and lung cancer risk in lifetime nonsmokers, does not weigh against a causal association; however, alternative explanations for a risk of a small magnitude need full exploration and cannot be so easily set aside as alternative explanations for a stronger association. Consistency, coherence, and the temporal relationship of involuntary smoking with disease are central to the interpretations in this report. To address coherence, the report draws not only on the evidence for involuntary smoking, but on the even more extensive literature on active smoking and disease.

Although the evidence reviewed in this report comes largely from investigations of secondhand smoke specifically, the larger body of evidence on active smoking is also relevant to many of the associations that were evaluated. The 1986 report found secondhand smoke to be qualitatively similar to mainstream smoke inhaled by the smoker and concluded that secondhand smoke would be expected to have "a toxic and carcinogenic potential that would not be expected to be qualitatively different from that of MS [mainstream smoke]" (USDHHS 1986, p. 23). The 2004 report of the Surgeon General revisited the health consequences of active smoking (USDHHS 2004), and the conclusions substantially expanded the list of diseases and conditions caused by smoking. Chapters in the present report consider the evidence on active smoking that is relevant to biologic plausibility for causal associations between involuntary smoking and disease. The reviews included in this report cover evidence identified through search strategies set out in each chapter. Of necessity, the evidence on mechanisms was selectively reviewed. However, an attempt was made to cover all health studies through specified target dates. Because of the substantial amount of time involved in preparing this report, lists of new key references published after these cut-off dates are included in an Appendix. Literature reviews were extended when new evidence was sufficient to possibly change the level of a causal conclusion.

Major Conclusions

This report returns to involuntary smoking, the topic of the 1986 Surgeon General's report. Since then, there have been many advances in the research on secondhand smoke, and substantial evidence has been reported over the ensuing 20 years. This report uses the revised language for causal conclusions that was implemented in the 2004 Surgeon General's report (USDHHS 2004). Each chapter provides a comprehensive review of the evidence, a quantitative synthesis of the evidence if appropriate, and a rigorous assessment of sources of bias that may affect interpretations of the findings. The reviews in this report reaffirm and strengthen the findings of the 1986 report. With regard to the involuntary exposure of nonsmokers to tobacco smoke, the scientific evidence now supports the following major conclusions:

1. Secondhand smoke causes premature death and disease in children and in adults who do not smoke.

2. Children exposed to secondhand smoke are at an increased risk for sudden infant death syndrome (SIDS), acute respiratory infections, ear problems, and more severe asthma. Smoking by parents causes respiratory symptoms and slows lung growth in their children.

3. Exposure of adults to secondhand smoke has immediate adverse effects on the cardiovascular system and causes coronary heart disease and lung cancer.

4. The scientific evidence indicates that there is no risk-free level of exposure to secondhand smoke.

5. Many millions of Americans, both children and adults, are still exposed to secondhand smoke in their homes and workplaces despite substantial progress in tobacco control.

6. Eliminating smoking in indoor spaces fully protects nonsmokers from exposure to secondhand smoke. Separating smokers from nonsmokers, cleaning the air, and ventilating buildings cannot eliminate exposures of nonsmokers to secondhand smoke.

Chapter Conclusions

Chapter 2. Toxicology of Secondhand Smoke

Evidence of Carcinogenic Effects from Secondhand Smoke Exposure

1. More than 50 carcinogens have been identified in sidestream and secondhand smoke.

2. The evidence is sufficient to infer a causal relationship between exposure to secondhand smoke and its condensates and tumors in laboratory animals.

3. The evidence is sufficient to infer that exposure of nonsmokers to secondhand smoke causes a significant increase in urinary levels of metabolites of the tobacco-specific lung carcinogen 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone (NNK). The presence of these metabolites links exposure to secondhand smoke with an increased risk for lung cancer.

4. The mechanisms by which secondhand smoke causes lung cancer are probably similar to those observed in smokers. The overall risk of secondhand smoke exposure, compared with active smoking, is diminished by a substantially lower carcinogenic dose.

Mechanisms of Respiratory Tract Injury and Disease Caused by Secondhand Smoke Exposure

5. The evidence indicates multiple mechanisms by which secondhand smoke exposure causes injury to the respiratory tract.

6. The evidence indicates mechanisms by which secondhand smoke exposure could increase the risk for sudden infant death syndrome.

Mechanisms of Secondhand Smoke Exposure and Heart Disease

7. The evidence is sufficient to infer that exposure to secondhand smoke has a prothrombotic effect.

8. The evidence is sufficient to infer that exposure to secondhand smoke causes endothelial cell dysfunctions.

9. The evidence is sufficient to infer that exposure to secondhand smoke causes atherosclerosis in animal models.

Chapter 3. Assessment of Exposure to Secondhand Smoke

Building Designs and Operations

1. Current heating, ventilating, and air conditioning systems alone cannot control exposure to secondhand smoke.

2. The operation of a heating, ventilating, and air conditioning system can distribute secondhand smoke throughout a building.

Exposure Models

3. Atmospheric concentration of nicotine is a sensitive and specific indicator for secondhand smoke.

4. Smoking increases indoor particle concentrations.

5. Models can be used to estimate concentrations of secondhand smoke.

Biomarkers of Exposure to Secondhand Smoke

6. Biomarkers suitable for assessing recent exposures to secondhand smoke are available.

7. At this time, cotinine, the primary proximate metabolite of nicotine, remains the biomarker of choice for assessing secondhand smoke exposure.

8. Individual biomarkers of exposure to secondhand smoke represent only one component of a complex mixture, and measurements of one marker may not wholly reflect an exposure to other components of concern as a result of involuntary smoking.

Chapter 4. Prevalence of Exposure to Secondhand Smoke

1. The evidence is sufficient to infer that large numbers of nonsmokers are still exposed to secondhand smoke.

2. Exposure of nonsmokers to secondhand smoke has declined in the United States since the 1986 Surgeon General's report, *The Health Consequences of Involuntary Smoking*.

3. The evidence indicates that the extent of secondhand smoke exposure varies across the country.

4. Homes and workplaces are the predominant locations for exposure to secondhand smoke.

5. Exposure to secondhand smoke tends to be greater for persons with lower incomes.

6. Exposure to secondhand smoke continues in restaurants, bars, casinos, gaming halls, and vehicles.

Chapter 5. Reproductive and Developmental Effects from Exposure to Secondhand Smoke

Fertility

1. The evidence is inadequate to infer the presence or absence of a causal relationship between maternal exposure to secondhand smoke and female fertility or fecundability. No data were found on paternal exposure to secondhand smoke and male fertility or fecundability.

Pregnancy (Spontaneous Abortion and Perinatal Death)

2. The evidence is inadequate to infer the presence or absence of a causal relationship between maternal exposure to secondhand smoke during pregnancy and spontaneous abortion.

Infant Deaths

3. The evidence is inadequate to infer the presence or absence of a causal relationship between exposure to secondhand smoke and neonatal mortality.

Sudden Infant Death Syndrome

4. The evidence is sufficient to infer a causal relationship between exposure to secondhand smoke and sudden infant death syndrome.

Preterm Delivery

5. The evidence is suggestive but not sufficient to infer a causal relationship between maternal exposure to secondhand smoke during pregnancy and preterm delivery.

Low Birth Weight

6. The evidence is sufficient to infer a causal relationship between maternal exposure to secondhand smoke during pregnancy and a small reduction in birth weight.

Congenital Malformations

7. The evidence is inadequate to infer the presence or absence of a causal relationship between exposure to secondhand smoke and congenital malformations.

Cognitive Development

8. The evidence is inadequate to infer the presence or absence of a causal relationship between exposure to secondhand smoke and cognitive functioning among children.

Behavioral Development

9. The evidence is inadequate to infer the presence or absence of a causal relationship between exposure to secondhand smoke and behavioral problems among children.

Height/Growth

10. The evidence is inadequate to infer the presence or absence of a causal relationship between exposure to secondhand smoke and children's height/growth.

Childhood Cancer

11. The evidence is suggestive but not sufficient to infer a causal relationship between prenatal and postnatal exposure to secondhand smoke and childhood cancer.

12. The evidence is inadequate to infer the presence or absence of a causal relationship between maternal exposure to secondhand smoke during pregnancy and childhood cancer.

13. The evidence is inadequate to infer the presence or absence of a causal relationship between exposure to secondhand smoke during infancy and childhood cancer.

14. The evidence is suggestive but not sufficient to infer a causal relationship between prenatal and postnatal exposure to secondhand smoke and childhood leukemias.

15. The evidence is suggestive but not sufficient to infer a causal relationship between prenatal and postnatal exposure to secondhand smoke and childhood lymphomas.

16. The evidence is suggestive but not sufficient to infer a causal relationship between prenatal and postnatal exposure to secondhand smoke and childhood brain tumors.

17. The evidence is inadequate to infer the presence or absence of a causal relationship between prenatal and postnatal exposure to secondhand smoke and other childhood cancer types.

Chapter 6. Respiratory Effects in Children from Exposure to Secondhand Smoke

Lower Respiratory Illnesses in Infancy and Early Childhood

1. The evidence is sufficient to infer a causal relationship between secondhand smoke exposure from parental smoking and lower respiratory illnesses in infants and children.

2. The increased risk for lower respiratory illnesses is greatest from smoking by the mother.

Middle Ear Disease and Adenotonsillectomy

3. The evidence is sufficient to infer a causal relationship between parental smoking and middle ear disease in children, including acute and recurrent otitis media and chronic middle ear effusion.

4. The evidence is suggestive but not sufficient to infer a causal relationship between parental smoking and the natural history of middle ear effusion.

5. The evidence is inadequate to infer the presence or absence of a causal relationship between parental smoking and an increase in the risk of adenoidectomy or tonsillectomy among children.

Respiratory Symptoms and Prevalent Asthma in School-Age Children

6. The evidence is sufficient to infer a causal relationship between parental smoking and cough, phlegm, wheeze, and breathlessness among children of school age.

7. The evidence is sufficient to infer a causal relationship between parental smoking and ever having asthma among children of school age.

Childhood Asthma Onset

8. The evidence is sufficient to infer a causal relationship between secondhand smoke exposure from parental smoking and the onset of wheeze illnesses in early childhood.

9. The evidence is suggestive but not sufficient to infer a causal relationship between secondhand smoke exposure from parental smoking and the onset of childhood asthma.

Atopy

10. The evidence is inadequate to infer the presence or absence of a causal relationship between parental smoking and the risk of immunoglobulin E-mediated allergy in their children.

Lung Growth and Pulmonary Function

11. The evidence is sufficient to infer a causal relationship between maternal smoking during pregnancy and persistent adverse effects on lung function across childhood.

12. The evidence is sufficient to infer a causal relationship between exposure to secondhand smoke after birth and a lower level of lung function during childhood.

Chapter 7. Cancer Among Adults from Exposure to Secondhand Smoke

Lung Cancer

1. The evidence is sufficient to infer a causal relationship between secondhand smoke exposure and lung cancer among lifetime nonsmokers. This conclusion extends to all secondhand smoke exposure, regardless of location.

2. The pooled evidence indicates a 20 to 30 percent increase in the risk of lung cancer from secondhand smoke exposure associated with living with a smoker.

Breast Cancer

3. The evidence is suggestive but not sufficient to infer a causal relationship between secondhand smoke and breast cancer.

Nasal Sinus Cavity and Nasopharyngeal Carcinoma

4. The evidence is suggestive but not sufficient to infer a causal relationship between secondhand smoke exposure and a risk of nasal sinus cancer among nonsmokers.

5. The evidence is inadequate to infer the presence or absence of a causal relationship between secondhand smoke exposure and a risk of nasopharyngeal carcinoma among nonsmokers.

Cervical Cancer

6. The evidence is inadequate to infer the presence or absence of a causal relationship between secondhand smoke exposure and the risk of cervical cancer among lifetime nonsmokers.

Chapter 8. Cardiovascular Diseases from Exposure to Secondhand Smoke

1. The evidence is sufficient to infer a causal relationship between exposure to secondhand smoke and increased risks of coronary heart disease morbidity and mortality among both men and women.

2. Pooled relative risks from meta-analyses indicate a 25 to 30 percent increase in the risk of coronary heart disease from exposure to secondhand smoke.

3. The evidence is suggestive but not sufficient to infer a causal relationship between exposure to secondhand smoke and an increased risk of stroke.

4. Studies of secondhand smoke and subclinical vascular disease, particularly carotid arterial wall thickening, are suggestive but not sufficient to infer a causal relationship between exposure to secondhand smoke and atherosclerosis.

Chapter 9. Respiratory Effects in Adults from Exposure to Secondhand Smoke

Odor and Irritation

1. The evidence is sufficient to infer a causal relationship between secondhand smoke exposure and odor annoyance.

2. The evidence is sufficient to infer a causal relationship between secondhand smoke exposure and nasal irritation.

3. The evidence is suggestive but not sufficient to conclude that persons with nasal allergies or a history of respiratory illnesses are more susceptible to developing nasal irritation from secondhand smoke exposure.

Respiratory Symptoms

4. The evidence is suggestive but not sufficient to infer a causal relationship between secondhand smoke exposure and acute respiratory symptoms including cough, wheeze, chest tightness, and difficulty breathing among persons with asthma.

5. The evidence is suggestive but not sufficient to infer a causal relationship between secondhand smoke exposure and acute respiratory symptoms including cough, wheeze, chest tightness, and difficulty breathing among healthy persons.

6. The evidence is suggestive but not sufficient to infer a causal relationship between secondhand smoke exposure and chronic respiratory symptoms.

Lung Function

7. The evidence is suggestive but not sufficient to infer a causal relationship between short-term secondhand smoke exposure and an acute decline in lung function in persons with asthma.

8. The evidence is inadequate to infer the presence or absence of a causal relationship between short-term secondhand smoke exposure and an acute decline in lung function in healthy persons.

9. The evidence is suggestive but not sufficient to infer a causal relationship between chronic secondhand smoke exposure and a small decrement in lung function in the general population.

10. The evidence is inadequate to infer the presence or absence of a causal relationship between chronic secondhand smoke exposure and an accelerated decline in lung function.

Asthma

11. The evidence is suggestive but not sufficient to infer a causal relationship between secondhand smoke exposure and adult-onset asthma.

12. The evidence is suggestive but not sufficient to infer a causal relationship between secondhand smoke exposure and a worsening of asthma control.

Chronic Obstructive Pulmonary Disease

13. The evidence is suggestive but not sufficient to infer a causal relationship between secondhand smoke exposure and risk for chronic obstructive pulmonary disease.

14. The evidence is inadequate to infer the presence or absence of a causal relationship between secondhand smoke exposure and morbidity in persons with chronic obstructive pulmonary disease.

Chapter 10. Control of Secondhand Smoke Exposure

1. Workplace smoking restrictions are effective in reducing secondhand smoke exposure.

2. Workplace smoking restrictions lead to less smoking among covered workers.

3. Establishing smoke-free workplaces is the only effective way to ensure that secondhand smoke exposure does not occur in the workplace.

4. The majority of workers in the United States are now covered by smoke-free policies.

5. The extent to which workplaces are covered by smoke-free policies varies among worker groups, across states, and by sociodemographic factors. Workplaces related to the entertainment and hospitality industries have notably high potential for secondhand smoke exposure.

6. Evidence from peer-reviewed studies shows that smoke-free policies and regulations do not have an adverse economic impact on the hospitality industry.

7. Evidence suggests that exposure to secondhand smoke varies by ethnicity and gender.

8. In the United States, the home is now becoming the predominant location for exposure of children and adults to secondhand smoke.

9. Total bans on indoor smoking in hospitals, restaurants, bars, and offices substantially reduce secondhand smoke exposure, up to several orders of magnitude with incomplete compliance, and with full compliance, exposures are eliminated.

10. Exposures of nonsmokers to secondhand smoke cannot be controlled by air cleaning or mechanical air exchange.

Methodologic Issues

Much of the evidence on the health effects of involuntary smoking comes from observational epidemiologic studies that were carried out to test hypotheses related to secondhand smoke and risk for diseases and other adverse health effects. The challenges faced in carrying out these studies reflect those of observational research generally: assessment of the relevant exposures and outcomes with sufficient validity and precision, selection of an appropriate study design, identification of an appropriate and sufficiently large study population, and collection of information on other relevant factors that may confound or modify the association being studied. The challenge of accurately classifying secondhand smoke exposures confronts all studies of such exposures, and consequently the literature on approaches to and limitations of exposure classification is substantial. Sources of bias that can affect the findings of epidemiologic studies have been widely discussed (Rothman and Greenland 1998), both in general and in relation to studies of involuntary smoking. Concerns about bias apply to any study of an environmental agent and disease risk: misclassification of exposures or outcomes, confounding effect modification, and proper selection of study participants. In addition, the generalizability of findings from one population to another (external validity) further determines the value of evidence from a study. Another methodologic concern affecting secondhand smoke literature comes from the use of meta-analysis to combine the findings of epidemiologic studies; general concerns related to the use of meta-analysis for observational data and more specific concerns related to involuntary smoking have also been raised. This chapter considers these methodologic issues in anticipation of more specific treatment in the following chapters.

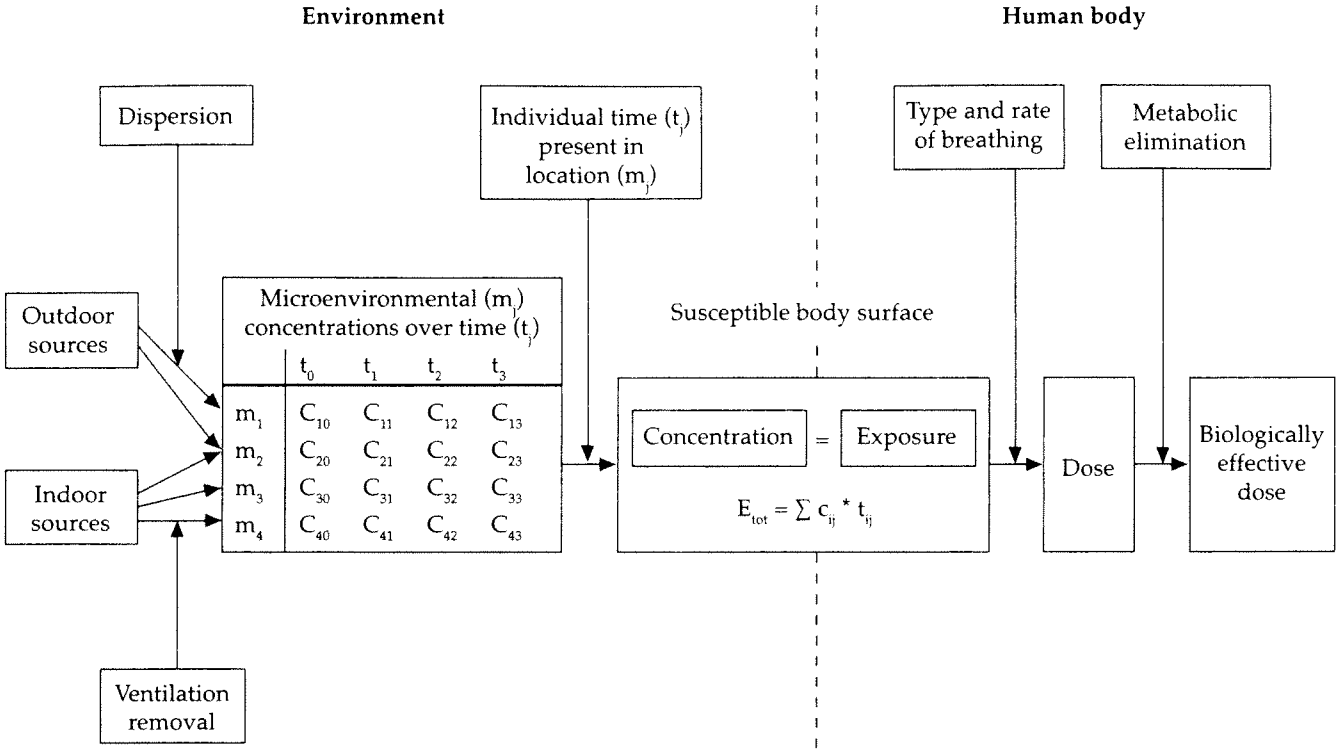
Classification of Secondhand Smoke Exposure

For secondhand smoke, as for any environmental factor that may be a cause of disease, the exposure assessment might encompass the time and place of the exposure, cumulative exposures, exposure during a particular time, or a recent exposure (Jaakkola and Jaakkola 1997; Jaakkola and Samet 1999). For example, exposures to secondhand smoke across the full life span may be of interest for lung cancer, while only more recent exposures may be relevant to the exacerbation of asthma. For CHD, both temporally remote and current exposures may affect risk. Assessments of exposures are further complicated by the multiplicity of environments where exposures take place and the difficulty of characterizing the exposure in some locations, such as public places or workplaces. Additionally, exposures probably vary qualitatively and quantitatively over time and across locations because of temporal changes and geographic differences in smoking patterns.

Nonetheless, researchers have used a variety of approaches for exposure assessments in epidemiologic studies of adverse health effects from involuntary smoking. Several core concepts that are fundamental to these approaches are illustrated in Figure 1.1 (Samet and Jaakkola 1999). Cigarette smoking is, of course, the source of most secondhand smoke in the United States, followed by pipes, cigars, and other products. Epidemiologic studies generally focus on assessing the exposure, which is the contact with secondhand smoke. The concentrations of secondhand smoke components in a space depend on the number of smokers and the rate at which they are smoking, the volume into which the smoke is distributed, the rate at which the air in the space exchanges with uncontaminated air, and the rate at which the secondhand smoke is removed from the air. Concentration, exposure, and dose differ in their definitions, although the terms are sometimes used without sharp distinctions. However, surrogate indicators that generally describe a source of exposure may also be used to assess the exposure, such as marriage to a smoker or the number of cigarettes smoked in the home. Biomarkers can provide an indication of an exposure or possibly the dose, but for secondhand smoke they are used for recent exposure only.

People are exposed to secondhand smoke in a number of different places, often referred to as "microenvironments" (NRC 1991). A microenvironment is a definable location that has a constant concentration of the contaminant of interest, such as secondhand smoke, during the time that a person is there. Some key microenvironments for secondhand smoke include the home, the workplace, public places, and transportation environments (Klepeis 1999). Based

Figure 1.1 The determinants of exposure, dose, and biologically effective dose that underlie the development of health effects from smoking



Source: Samet and Jaakkola 1999. Reprinted with permission.

on the microenvironmental model, total exposure can be estimated as the weighted average of the concentrations of secondhand smoke or indicator compounds, such as nicotine, in the microenvironments where time is spent; the weights are the time spent in each microenvironment. Klepeis (1999) illustrates the application of the microenvironmental model with national data from the National Human Activity Pattern Survey conducted by the EPA. His calculations yield an overall estimate of exposure to airborne particles from smoking and of the contributions to this exposure from various microenvironments.

Much of the epidemiologic evidence addresses the consequences of an exposure in a particular microenvironment, such as the home (spousal smoking and lung cancer risk or maternal smoking and risk for asthma exacerbation), or the workplace (exacerbation of asthma by the presence of smokers). Some studies have attempted to cover multiple microenvironments and to characterize exposures over time. For example, in the multicenter study of secondhand smoke exposure and lung cancer carried out in the United States, Fontham and colleagues (1994) assessed exposures during childhood, in workplaces, and at home during adulthood. Questionnaires that assess exposures have been the primary tool used in epidemiologic studies of secondhand smoke and disease. Measurement of biomarkers has been added in some studies, either as an additional and complementary exposure assessment approach or for validating questionnaire responses. Some studies have also measured components of secondhand smoke in the air.

Questionnaires generally address sources of exposure in microenvironments and can be tailored to address the time period of interest. Questionnaires represent the only approach that can be used to assess exposures retrospectively over a life span, because available biomarkers only reflect exposures

over recent days or, at most, weeks. Questionnaires on secondhand smoke exposure have been assessed for their reliability and validity, generally based on comparisons with either biomarker or air monitoring data as the "gold" standard (Jaakkola and Jaakkola 1997). Two studies evaluated the reliability of questionnaires on lifetime exposures (Pron et al. 1988; Coultas et al. 1989). Both showed a high degree of repeatability for questions concerning whether a spouse had smoked, but a lower reliability for responses concerning the quantitative aspects of an exposure. Emerson and colleagues (1995) evaluated the repeatability of information from parents of children with asthma. They found a high reliability for parent-reported tobacco use and for the number of cigarettes to which the child was exposed in the home during the past week.

To assess validity, questionnaire reports of current or recent exposures have been compared with levels of cotinine and other biomarkers. These studies tend to show a moderate correlation between levels of cotinine and questionnaire indicators of exposures (Kawachi and Colditz 1996; Cal/EPA 1997; Jaakkola and Jaakkola 1997). However, cotinine levels reflect not only exposure but metabolism and excretion (Benowitz 1999). Consequently, exposure is only one determinant of variation in cotinine levels among persons; there also are individual variations in metabolism and excretion rates. In spite of these sources of variability, mean levels of cotinine vary as anticipated across categories of self-reported exposures (Cal/EPA 1997; Jaakkola and Jaakkola 1997), and self-reported exposures are moderately associated with measured levels of markers (Cal/EPA 1997; Jaakkola and Jaakkola 1997).

Biomarkers are also used for assessing exposures to secondhand smoke. A number of biomarkers are available, but they vary in their specificity and in the dynamics of the temporal relationship between the exposure and the marker level (Cal/EPA 1997; Benowitz 1999). These markers include specific tobacco smoke components (nicotine) or metabolites (cotinine and tobacco-specific nitrosamines), nonspecific biomarkers (thiocyanate and CO), adducts with tobacco smoke components or metabolites (4-aminobiphenyl–hemoglobin adducts, benzo[*a*]pyrene–DNA adducts, and polycyclic aromatic hydrocarbon–albumin adducts), and nonspecific assays (urinary mutagenicity). Cotinine has been the most widely used biomarker, primarily because of its specificity, half-life, and ease of measurement in body fluids (e.g., urine, blood, and saliva). Biomarkers are discussed in detail in Chapter 3 (Assessment of Exposure to Secondhand Smoke).

Some epidemiologic studies have also incorporated air monitoring, either direct personal sampling or the indirect approach based on the microenvironmental model. Nicotine, present in the gas phase of secondhand smoke, can be monitored passively with a special filter or actively using a pump and a sorbent. Hammond and Leaderer (1987) first described a diffusion monitor for the passive sampling of nicotine in 1987; this device has now been widely used to assess concentrations in different environments and to study health effects. Airborne particles have also been measured using active monitoring devices.

Each of these approaches for assessing exposures has strengths and limitations, and preference for one over another will depend on the research question and its context (Jaakkola and Jaakkola 1997; Jaakkola and Samet 1999). Questionnaires can be used to characterize sources of exposures, such as smoking by parents. With air concentrations of markers and time-activity information, estimates of secondhand smoke exposures can be made with the microenvironmental model. Biomarkers provide exposure measures that reflect the patterns of exposure and the kinetics of the marker; the cotinine level in body fluids, for example, reflects an exposure during several days. Air monitoring may be useful for validating measurements of exposure. Exposure assessment strategies are matched to the research question and often employ a mixture of approaches determined by feasibility and cost constraints.

Misclassification of Secondhand Smoke Exposure

Misclassification may occur when classifying exposures, outcomes, confounding factors, or modifying factors. Misclassification may be differential on either exposure or outcome, or it may be random (Armstrong et al. 1992). Differential or nonrandom misclassification may either increase or decrease estimates of effect, while random misclassification tends to reduce the apparent effect and weaken the relationship of exposure with disease risk. In studies of secondhand smoke and disease risk, exposure misclassification has been a major consideration in the interpretation of the evidence, although misclassification of health outcome measures has not been a substantial issue in this research. The consequences for epidemiologic studies of misclassification in general are well established (Rothman and Greenland 1998).

An extensive body of literature on the classification of exposures to secondhand smoke is reviewed in this and other chapters, as well as in some publications on the consequences of misclassification (Wu 1999). Two general patterns of exposure misclassification are of concern to secondhand smoke: (1) random misclassification that is not differential by the presence or absence of the health outcome and (2) systematic misclassification that is differential by the health outcome. In studying the health effects of secondhand smoke in adults, there is a further concern as to the classification of the active smoking status (never, current, or former smoking); in studies of children, the accuracy of secondhand smoke exposure classification is the primary methodologic issue around exposure assessment, but unreported active smoking by adolescents is also a concern.

With regard to random misclassification of secondhand smoke exposures, there is an inherent degree of unavoidable measurement error in the exposure measures used in epidemiologic studies. Questionnaires generally assess contact with sources of an exposure (e.g., smoking in the home or workplace) and cannot capture all exposures nor the intensity of exposures; biomarkers provide an exposure index for a particular time window and have intrinsic variability. Some building-related factors that determine an exposure cannot be assessed accurately by a questionnaire, such as the rate of air exchange and the size of the microenvironment where time is spent, nor can concentrations be assessed accurately by subjective reports of the perceived level of tobacco smoke. In general, random misclassification of exposures tends to reduce the likelihood that studies of secondhand smoke exposure will find an effect. This type of misclassification lessens the contrast between exposure groups, because some truly exposed persons are placed in the unexposed group and some truly unexposed persons are placed in the exposed group. Differential misclassification, also a concern, may increase or decrease associations, depending on the pattern of misreporting.

One particular form of misclassification has been raised with regard to secondhand smoke exposure and lung cancer: the classification of some current or former smokers as lifetime nonsmokers (USEPA 1992; Lee and Forey 1995; Hackshaw et al. 1997; Wu 1999). The resulting bias would tend to increase the apparent association of secondhand smoke with lung cancer, if the misclassified active smokers are also more likely to be classified as involuntary smokers. Most studies of lung cancer and secondhand smoke have used spousal smoking as a main exposure variable. As smoking tends to aggregate between spouses (smokers are more likely to marry smokers), misclassification of active smoking would tend to be differential on the basis of spousal smoking (the exposure under investigation). Because active smoking is strongly associated with increased disease risk, greater misclassification of an actively smoking spouse as a nonsmoker among spouses of smokers compared with spouses of nonsmokers would lead to risk estimates for spousal smoking that are biased upward by the effect of active smoking. This type of misclassification is also relevant to studies of spousal exposure and CHD risk or other diseases also caused by active smoking, although the potential for bias is less because the association of active smoking with CHD is not as strong as with lung cancer.

There have been a number of publications on this form of misclassification. Wu (1999) provides a review, and Lee and colleagues (2001) offer an assessment of potential consequences. A number of models have been developed to assess the extent of bias resulting from the misclassification of active smokers as lifetime nonsmokers (USEPA 1992; Hackshaw et al. 1997). These models incorporate estimates of the rate of misclassification, the degree of aggregation of smokers by marriage, the prevalence of smoking in the population, and the risk of lung cancer in misclassified smokers (Wu 1999). Although debate about this issue continues, analyses show that estimates of upward bias from misclassifying active smokers as lifetime nonsmokers cannot fully explain the observed increase in risk for lung cancer among lifetime nonsmokers married to smokers (Hackshaw et al. 1997; Wu 1999).

There is one additional issue related to exposure misclassification. During the time the epidemiologic studies of secondhand smoke have been carried out, exposure has been widespread and almost unavoidable. Therefore, the risk estimates may be biased downward because there are no truly unexposed persons. The 1986 Surgeon General's report recognized this methodologic issue and noted the need for further data on population exposures to secondhand smoke (USDHHS 1986). This bias was also recognized in the 1986 report of the NRC, and an adjustment for this misclassification was made to the lung cancer estimate (NRC 1986). Similarly, the 1992 report of the EPA commented on background exposure and made an adjustment (USEPA 1992). Some later studies have attempted to address this issue; for example, in a case-control study of active and involuntary smoking and breast cancer in Switzerland, Morabia and colleagues (2000) used a questionnaire to assess exposure and

identified a small group of lifetime nonsmokers who also reported no exposure to secondhand smoke. With this subgroup of controls as the reference population, the risks of secondhand smoke exposure were substantially greater for active smoking than when the full control population was used.

This Surgeon General's report further addresses specific issues of exposure misclassification when they are relevant to the health outcome under consideration.

Use of Meta-Analysis

Meta-analysis refers to the process of evaluating and combining a body of research literature that addresses a common question. Meta-analysis is composed of qualitative and quantitative components. The qualitative component involves the systematic identification of all relevant investigations, a systematic assessment of their characteristics and quality, and the decision to include or exclude studies based on predetermined criteria. Consideration can be directed toward sources of bias that might affect the findings. The quantitative component involves the calculation and display of study results on common scales and, if appropriate, the statistical combination of these results across studies and an exploration of the reasons for any heterogeneity of findings. Viewing the findings of all studies as a single plot provides insights into the consistency of results and the precision of the studies considered. Most meta-analyses are based on published summary results, although they are most powerful when applied to data at the level of individual participants. Meta-analysis is most widely used to synthesize evidence from randomized clinical trials, sometimes yielding findings that were not evident from the results of individual studies. Meta-analysis also has been used extensively to examine bodies of observational evidence.

Beginning with the 1986 NRC report, meta-analysis has been used to summarize the evidence on involuntary smoking and health. Meta-analysis was central to the 1992 EPA risk assessment of secondhand smoke, and a series of meta-analyses supported the conclusions of the 1998 report of the Scientific Committee on Tobacco and Health in the United Kingdom. The central role of meta-analysis in interpreting and applying the evidence related to involuntary smoking and disease has led to focused criticisms of the use of meta-analysis in this context. Several papers that acknowledged support from the tobacco industry have addressed the epidemiologic findings for lung cancer, including the selection and quality of the studies, the methods for meta-analysis, and dose-response associations (Fleiss and Gross 1991; Tweedie and Mengersen 1995; Lee 1998, 1999). In a lawsuit brought by the tobacco industry against the EPA, the 1998 decision handed down by Judge William L. Osteen, Sr., in the North Carolina Federal District Court criticized the approach EPA had used to select studies for its meta-analysis and criticized the use of 90 percent rather than 95 percent confidence intervals for the summary estimates (*Flue-Cured Tobacco Cooperative Stabilization Corp. v. United States Environmental Protection Agency*, 857 F. Supp. 1137 [M.D.N.C. 1993]). In December 2002, the 4th U.S. Circuit Court of Appeals threw out the lawsuit on the basis that tobacco companies cannot sue the EPA over its secondhand smoke report because the report was not a final agency action and therefore not subject to court review (*Flue-Cured Tobacco Cooperative Stabilization Corp. v. The United States Environmental Protection Agency*, No. 98-2407 [4th Cir., December 11, 2002], *cited in* 17.7 TPLR 2.472 [2003]).

Recognizing that there is still an active discussion around the use of meta-analysis to pool data from observational studies (versus clinical trials), the authors of this Surgeon General's report used this methodology to summarize the available data when deemed appropriate and useful, even while recognizing that the uncertainty around the meta-analytic estimates may exceed the uncertainty indicated by conventional statistical indices, because of biases either within the observational studies or produced by the manner of their selection. However, a decision to not combine estimates might have produced conclusions that are far more uncertain than the data warrant because the review would have focused on individual study results without considering their overall pattern, and without allowing for a full accounting of different sample sizes and effect estimates.

The possibility of publication bias has been raised as a potential limitation to the interpretation of evidence on involuntary smoking and disease in general, and on lung cancer and secondhand smoke exposure specifically. A 1988 paper by Vandenbroucke used a descriptive approach, called a "funnel plot," to assess the possibility that publication bias affected the 13 studies considered in a review by Wald and colleagues (1986). This type of plot characterizes the relationship between the magnitude of estimates and their precision. Vandenbroucke suggested the possibility of publication bias only in reference to the studies of men. Bero and colleagues (1994) concluded that there

had not been a publication bias against studies with statistically significant findings, nor against the publication of studies with nonsignificant or mixed findings in the research literature. The researchers were able to identify only five unpublished "negative" studies, of which two were dissertations that tend to be delayed in publication. A subsequent study by Misakian and Bero (1998) did find a delay in the publication of studies with nonsignificant results in comparison with studies having significant results; whether this pattern has varied over the several decades of research on secondhand smoke was not addressed. More recently, Copas and Shi (2000) assessed the 37 studies considered in the meta-analysis by Hackshaw and colleagues (1997) for publication bias. Copas and Shi (2000) found a significant correlation between the estimated risk of exposure and sample size, such that smaller studies tended to have higher values. This pattern suggests the possibility of publication bias. However, using a funnel plot of the same studies, Lubin (1999) found little evidence for publication bias.

On this issue of publication bias, it is critical to distinguish between indirect statistical arguments and arguments based on actual identification of previously unidentified research. The strongest case against substantive publication bias has been made by researchers who mounted intensive efforts to find the possibly missing studies; these efforts have yielded little—nothing that would alter published conclusions (Bero et al. 1994; Glantz 2000). Presumably because this exposure is a great public health concern, the findings of studies that do not have statistically significant outcomes continue to be published (Kawachi and Colditz 1996).

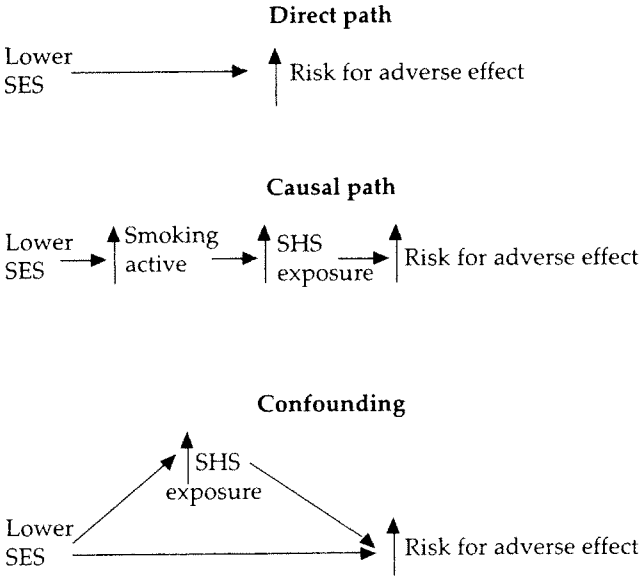
The quantitative results of the meta-analyses, however, were not determinate in making causal inferences in this Surgeon General's report. In particular, the level of statistical significance of estimates from the meta-analyses was not a predominant factor in making a causal conclusion. For that purpose, this report relied on the approach and criteria set out in the 1964 and 2004 reports of the Surgeon General, which involved judgments based on an array of quantitative and qualitative considerations that included the degree of heterogeneity in the designs of the studies that were examined. Sometimes this heterogeneity limits the inference from meta-analysis by weakening the rationale for pooling the study results. However, the availability of consistent evidence from heterogenous designs can strengthen the meta-analytic findings by making it unlikely that a common bias could persist across different study designs and populations.

Confounding

Confounding, which refers in this context to the mixing of the effect of another factor with that of secondhand smoke, has been proposed as an explanation for associations of secondhand smoke with adverse health consequences. Confounding occurs when the factor of interest (secondhand smoke) is associated in the data under consideration with another factor (the confounder) that, by itself, increases the risk for the disease (Rothman and Greenland 1998). Correlates of secondhand smoke exposures are not confounding factors unless an exposure to them increases the risk of disease. A factor proposed as a potential confounder is not necessarily an actual confounder unless it fulfills the two elements of the definition. Although lengthy lists of potential confounding factors have been offered as alternatives to direct associations of secondhand smoke exposures with the risk for disease, the factors on these lists generally have not been shown to be confounding in the particular data of interest.

The term confounding also conveys an implicit conceptualization as to the causal pathways that link secondhand smoke and the confounding factor to

Figure 1.2 Model for socioeconomic status (SES) and secondhand smoke (SHS) exposure



Arrows indicate directionality of association.

disease risk. Confounding implies that the confounding factor has an effect on risk that is independent of secondhand smoke exposure. Some factors considered as potential confounders may, however, be in the same causal pathway as a secondhand smoke exposure. Although socioeconomic status (SES) is often cited as a potential confounding factor, it may not have an independent effect but can affect disease risk through its association with secondhand smoke exposure (Figure 1.2). This figure shows general alternative relationships among SES, secondhand smoke exposure, and risk for an adverse effect. SES may have a direct effect, or it may indirectly exert its effect through an association with secondhand smoke exposure, or it may confound the relationship between secondhand smoke exposure and disease risk. To control for SES as a potential confounding factor without considering underlying relationships may lead to incorrect risk estimates. For example, controlling for SES would not be appropriate if it is a determinant of secondhand smoke exposure but has no direct effect.

Nonetheless, because the health effects of involuntary smoking have other causes, the possibility of confounding needs careful exploration when assessing associations of secondhand smoke exposure with adverse health effects. In addition, survey data from the last several decades show that secondhand smoke exposure is associated with correlates of lifestyle that may influence the risk for some health effects, thus increasing concerns for the possibility of confounding (Kawachi and Colditz 1996). Survey data from the United States (Matanoski et al. 1995) and the United Kingdom (Thornton et al. 1994) show that adults with secondhand smoke exposures generally tend to have less healthful lifestyles. However, the extent to which these patterns of association can be generalized, either to other countries or to the past, is uncertain.

The potential bias from confounding varies with the association of the confounder to secondhand smoke exposures in a particular study and to the strength of the confounder as a risk factor. The importance of confounding to the interpretation of evidence depends further on the magnitude of the effect of secondhand smoke on disease. As the strength of an association lessens, confounding as an alternative explanation for an association becomes an increasing concern. In prior reviews, confounding has been addressed either quantitatively (Hackshaw et al. 1997) or qualitatively (Cal/EPA 1997; Thun et al. 1999). In the chapters in this report that focus on specific diseases, confounding is specifically addressed in the context of potential confounding factors for the particular diseases.

Tobacco Industry Activities

The evidence on secondhand smoke and disease risk, given the public health and public policy implications, has been reviewed extensively in the published peer-reviewed literature and in evaluations by a number of expert panels. In addition, the evidence has been criticized repeatedly by the tobacco industry and its consultants in venues that have included the peer-reviewed literature, public meetings and hearings, and scientific symposia that included symposia sponsored by the industry. Open criticism in the peer-reviewed literature can strengthen the credibility of scientific evidence by challenging researchers to consider the arguments proposed by critics and to rebut them.

Industry documents indicate that the tobacco industry has engaged in widespread activities, however, that have gone beyond the bounds of accepted scientific practice (Glantz 1996; Ong and Glantz 2000, 2001; Rampton and Stauber 2000; Yach and Bialous 2001; Hong and Bero 2002; Diethelm et al. 2004). Through a variety of organized tactics, the industry has attempted to undermine the credibility of the scientific evidence on secondhand smoke. The industry has funded or carried out research that has been judged to be biased, supported scientists to generate letters to editors that criticized research publications, attempted to undermine the findings of key studies, assisted in establishing a scientific society with a journal, and attempted to sustain controversy even as the scientific community reached consensus (Garne et al. 2005). These tactics are not a topic of this report, but to the extent that the scientific literature has been distorted, they are addressed as the evidence is reviewed. This report does not specifically identify tobacco industry sponsorship of publications unless that information is relevant to the interpretation of the findings and conclusions.

A Vision for the Future

This country has experienced a substantial reduction of involuntary exposure to secondhand tobacco smoke in recent decades. Significant reductions in the rate of smoking among adults began even earlier. Consequently, about 80 percent of adults are now nonsmokers, and many adults and children can live their daily lives without being exposed to secondhand smoke. Nevertheless, involuntary exposure to secondhand smoke remains a serious public health hazard.

This report documents the mounting and now substantial evidence characterizing the health risks caused by exposure to secondhand smoke. Multiple major reviews of the evidence have concluded that secondhand smoke is a known human carcinogen, and that exposure to secondhand smoke causes adverse effects, particularly on the cardiovascular system and the respiratory tract and on the health of those exposed, children as well as adults. Unfortunately, reductions in exposure have been slower among young children than among adults during the last decade, as expanding workplace restrictions now protect the majority of adults while homes remain the most important source of exposure for children.

Clearly, the social norms regarding secondhand smoke have changed dramatically, leading to widespread support over the past 30 years for a society free of involuntary exposures to tobacco smoke. In the first half of the twentieth century smoking was permitted in almost all public places, including elevators and all types of public transportation. At the time of the 1964 Surgeon General's report on smoking and health (U.S. Department of Health, Education, and Welfare [USDHEW] 1964), many physicians were still smokers, and the tables in U.S. Public Health Service (PHS) meeting rooms had PHS ashtrays on them. A thick, smoky haze was an accepted part of presentations at large meetings, even at medical conferences and in the hospital environment.

As the adverse health consequences of active smoking became more widely documented in the 1960s, many people began to question whether exposure of nonsmokers to secondhand smoke also posed a serious health risk. This topic was first addressed in this series of reports by Surgeon General Jesse Steinfeld in the 1972 report to Congress (USDHEW 1972). During the 1970s, policy changes to provide smoke-free environments received more widespread consideration. As the public policy debate grew and expanded in the 1980s, the scientific evidence on the risk of adverse effects from exposure to secondhand smoke was presented in a comprehensive context for the first time by Surgeon General C. Everett Koop in the 1986 report, *The Health Consequences of Involuntary Smoking* (U.S. Department of Health and Human Services [USDHHS] 1986).

The ever-increasing momentum for smoke-free indoor environments has been driven by scientific evidence on the health risks of involuntary exposure to secondhand smoke. This new Surgeon General's report is based on a far larger body of evidence than was available in 1986. The evidence reviewed in this report confirms the findings of the 1986 report and adds new causal conclusions. The growing body of data increases support for the conclusion that exposure to secondhand smoke causes lung cancer in lifetime nonsmokers. In addition to epidemiologic data, this report presents converging evidence that the mechanisms by which secondhand smoke causes lung cancer are similar to those that cause lung cancer in active smokers. In the context of the risks from active smoking, the lung cancer risk that secondhand smoke exposure poses to nonsmokers is consistent with an extension to involuntary smokers of the dose-response relationship for active smokers.

Cardiovascular effects of even short exposures to secondhand smoke are readily measurable, and the risks for cardiovascular disease from involuntary smoking appear to be about 50 percent less than the risks for active smokers. Although the risks from secondhand smoke exposures are larger than anticipated, research on the mechanisms by which tobacco smoke exposure affects the cardiovascular system supports the plausibility of the findings of epidemiologic studies (the 1986 report did not address cardiovascular disease). This 2006 report also reviews the evidence on the multiple mechanisms by which secondhand smoke injures the respiratory tract and causes sudden infant death syndrome.

Since 1986, the attitude of the public toward and the social norms around secondhand smoke exposure have changed dramatically to reflect a growing viewpoint that the involuntary exposure of nonsmokers to secondhand smoke is unacceptable. As a result, increasingly strict public policies to control involuntary exposure to secondhand smoke have been put in

place. The need for restrictions on smoking in enclosed public places is now widely accepted in the United States. A growing number of communities, counties, and states are requiring smoke-free environments for nearly all enclosed public places, including all private worksites, restaurants, bars, and casinos.

As knowledge about the health risks of secondhand smoke exposure grows, investigators continue to identify additional scientific questions.

- Because active smoking is firmly established as a causal factor of cancer for a large number of sites, and because many scientists assert that there may be no threshold for carcinogenesis from tobacco smoke exposure, researchers hypothesize that people who are exposed to secondhand smoke are likely to be at some risk for the same types of cancers that have been established as smoking-related among active smokers.

- The potential risks for stroke and subclinical vascular disease from secondhand smoke exposure require additional research.

- There is a need for additional research on the etiologic relationship between secondhand smoke exposure and several respiratory health outcomes in adults, including respiratory symptoms, declines in lung function, and adult-onset asthma.

- There is also a need for research to further evaluate the adverse reproductive outcomes and childhood respiratory effects from both prenatal and postnatal exposure to secondhand smoke.

- Further research and improved methodologies are also needed to advance an understanding of the potential effects on cognitive, behavioral, and physical development that might be related to early exposures to secondhand smoke.

As these and other research questions are addressed, the scientific literature documenting the adverse health effects of exposure to secondhand smoke will expand. Over the past 40 years since the release of the landmark 1964 report of the Surgeon General's Advisory Committee on Smoking and Health (USDHEW 1964), researchers have compiled an ever-growing list of adverse health effects caused by exposure to tobacco smoke, with evidence that active smoking causes damage to virtually every organ of the body (USDHHS 2004). Similarly, since the 1986 report (USDHHS 1986), the number of adverse health effects caused by exposure to secondhand smoke has also expanded. Following the format of the electronic database released with the 2004 report, the research findings supporting the conclusions in this report will be accessible in a database that can be found at http://www.cdc.gov/tobacco. With an this expanding base of scientific knowledge, the list of adverse health effects caused by exposure to secondhand smoke will likely increase.

Biomarker data from the 2005 *Third National Report on Human Exposure to Environmental Chemicals* document great progress since the 1986 report in reducing the involuntary exposure of nonsmokers to secondhand smoke (CDC 2005). Between the late 1980s and 2002, the median cotinine level (a metabolite of nicotine) among nonsmokers declined by more than 70 percent. Nevertheless, many challenges remain to maintain the momentum toward universal smoke-free environments. First, there is a need to continue and even improve the surveillance of sources and levels of exposure to secondhand smoke. The data from the 2005 exposure report show that median cotinine levels among children are more than twice those of nonsmoking adults, and non-Hispanic Blacks have levels more than twice those of Mexican Americans and non-Hispanic Whites (CDC 2005). The multiple factors related to these disparities in median cotinine levels among nonsmokers need to be identified and addressed. Second, the data from the 2005 exposure report suggest that the scientific community should sustain the current momentum to reduce exposures of nonsmokers to secondhand smoke (CDC 2005). Research reviewed in this report indicates that policies creating completely smoke-free environments are the most economical and efficient approaches to providing this protection. Additionally, neither central heating, ventilating, and air conditioning systems nor separately ventilated rooms control exposures to secondhand smoke. Unfortunately, data from the 2005 exposure report also emphasized that young children remain an exposed population (CDC 2005). However, more evidence is needed on the most effective strategies to promote voluntary changes in smoking norms and practices in homes and private automobiles. Finally, data on the health consequences of secondhand smoke exposures emphasize the importance of the role of health care professionals in this issue. They must assume a greater, more active involvement in reducing exposures, particularly for susceptible groups.

The findings and recommendations of this report can be extended to other countries and are supportive of international efforts to address the health effects of smoking and secondhand smoke exposure. There is an international consensus that exposure to secondhand smoke poses significant public health risks. The Framework Convention on Tobacco Control recognizes that protecting nonsmokers from involuntary exposures to secondhand smoke in public places should be an integral part of comprehensive national tobacco control policies and programs. Recent changes in national policies in countries such as Italy and Ireland reflect this growing international awareness of the need for additional protection of nonsmokers from involuntary exposures to secondhand smoke.

When this series of reports began in 1964, the majority of men and a substantial proportion of women were smokers, and most nonsmokers inevitably must have been involuntary smokers. With the release of the 1986 report, Surgeon General Koop noted that "the right of smokers to smoke ends where their behavior affects the health and well-being of others" (USDHHS 1986, p. xii). As understanding increases regarding health consequences from even brief exposures to secondhand smoke, it becomes even clearer that the health of nonsmokers overall, and particularly the health of children, individuals with existing heart and lung problems, and other vulnerable populations, requires a higher priority and greater protection.

Together, this report and the 2004 report of the Surgeon General, *The Health Consequences of Smoking* (USDHHS 2004), document the extraordinary threat to the nation's health from active and involuntary smoking. The recent reductions in exposures of nonsmokers to secondhand smoke represent significant progress, but involuntary exposures persist in many settings and environments. More evidence is needed to understand why this progress has not been equally shared across all populations and in all parts of this nation. Some states (California, Connecticut, Delaware, Maine, Massachusetts, New York, Rhode Island, and Washington) have met the *Healthy People 2010* objectives (USDHHS 2000) that protect against involuntary exposures to secondhand smoke through recommended policies, regulations, and laws, while many other parts of this nation have not (USDHHS 2000). Evidence presented in this report suggests that these disparities in levels of protection can be reduced or eliminated. Sustained progress toward a society free of involuntary exposures to secondhand smoke should remain a national public health priority.

References

Armstrong BK, White E, Saracci R, editors. *Principles of Exposure Measurement in Epidemiology*. Monographs in Epidemiology and Biostatistics. Vol. 21. New York: Oxford University Press, 1992.

Benowitz NL. Biomarkers of environmental tobacco smoke. *Environmental Health Perspectives* 1999;107(Suppl 2):349–55.

Bero LA, Glantz SA, Rennie D. Publication bias and public health policy on environmental tobacco smoke. *Journal of the American Medical Association* 1994;272(2):133–6.

California Environmental Protection Agency. *Health Effects of Exposure to Environmental Tobacco Smoke*. Sacramento (CA): California Environmental Protection Agency, Office of Environmental Health Hazard Assessment, Reproductive and Cancer Hazard Assessment Section and Air Toxicology and Epidemiology Section, 1997.

California Environmental Protection Agency. *Proposed Identification of Environmental Tobacco Smoke as a Toxic Air Contaminant. Part B: Health Effects*. Sacramento (CA): California Environmental Protection Agency, Office of Environmental Health Hazard Assessment, 2005.

Centers for Disease Control and Prevention. *Third National Report on Human Exposure to Environmental Chemicals*. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Environmental Health, 2005. NCEH Publication No. 05-0570.

Copas JB, Shi JQ. Reanalysis of epidemiological evidence on lung cancer and passive smoking. *British Medical Journal* 2000;320(7232):417–8.

Coultas DB, Peake GT, Samet JM. Questionnaire assessment of lifetime and recent exposure to environmental tobacco smoke. *American Journal of Epidemiology* 1989;130(2):338–47.

Diethelm PA, Rielle JC, McKee M. The whole truth and nothing but the truth? The research that Phillip Morris did not want you to see, November 11, 2004; <http://image.thelancet.com/extras/03art7306web.pdf>; accessed: January 6, 2005.

Emerson JA, Hovell MF, Meltzer SB, Zakarian JM, Hofstetter CR, Wahlgren DR, Leaderer BP, Meltzer EO. The accuracy of environmental tobacco smoke exposure measures among asthmatic children. *Journal of Clinical Epidemiology* 1995;48(10):1251–9.

Fleiss JL, Gross AJ. Meta-analysis in epidemiology, with special reference to studies of the association between exposure to environmental tobacco smoke and lung cancer: a critique. *Journal of Clinical Epidemiology* 1991;44(2):127–39.

Flue-Cured Tobacco Cooperative Stabilization Corp. v. United States Environmental Protection Agency (M.D.N.C. June 22, 1993), *cited in* 8.2 TPLR 3.97 (1993).

Flue-Cured Tobacco Cooperative Stabilization Corp. v. The United States Environmental Protection Agency, No. 98-2407 (4th Cir., December 11, 2002), *cited in* 17.7 TPLR 2.472 (2003) (Overturning lower court's decision invalidating EPA's findings that secondhand smoke is a "known human carcinogen").

Fontham ET, Correa P, Reynolds P, Wu-Williams A, Buffler PA, Greenberg RS, Chen VW, Alterman T, Boyd P, Austin DF, Liff J. Environmental tobacco smoke and lung cancer in nonsmoking women: a multicenter study. *Journal of the American Medical Association* 1994;271(22):1752–9.

Garne D, Watson M, Chapman S, Byrne F. Environmental tobacco smoke research published in the journal *Indoor and Built Environment* and associations with the tobacco industry. *Lancet* 2005; 365(9461):804–9.

Glantz SA. The ledger of tobacco control. *Journal of the American Medical Association* 1996;276(11):871–2.

Glantz SA. Lung cancer and passive smoking: nothing new was said. *British Medical Journal* 2000;321(7270):1222–3.

Hackshaw AK, Law MR, Wald NJ. The accumulated evidence on lung cancer and environmental tobacco smoke. *British Medical Journal* 1997;315(7114): 980–8.

Hammond SK, Leaderer BP. A diffusion monitor to measure exposure to passive smoking. *Environmental Science & Technology* 1987;21(5):494–7.

Hong MK, Bero LA. How the tobacco industry responded to an influential study of the health effects of secondhand smoke. *British Medical Journal* 2002;325(7377):1413–6.

International Agency for Research on Cancer. *IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans: Tobacco Smoking*. Vol. 38. Lyon (France): International Agency for Research on Cancer, 1986.

International Agency for Research on Cancer. *IARC Monographs on the Evaluation of Carcinogenic Risks to Humans: Tobacco Smoke and Involuntary Smoking.* Vol. 83. Lyon (France): International Agency for Research on Cancer, 2004.

Jaakkola MS, Jaakkola JJ. Assessment of exposure to environmental tobacco smoke. *European Respiratory Journal* 1997;10(10):2384–97.

Jaakkola MS, Samet JM. Environmental tobacco smoke: risk assessment. *Environmental Health Perspectives* 1999;107(Suppl 6):823–904.

Kawachi I, Colditz GA. Invited commentary: confounding, measurement error, and publication bias in studies of passive smoking. *American Journal of Epidemiology* 1996;144(10):909–15.

Klepeis NE. An introduction to the indirect exposure assessment approach: modeling human exposure using microenvironmental measurements and the recent National Human Activity Pattern Survey. *Environmental Health Perspectives* 1999;107(Suppl 2):365–74.

Lee PN. Difficulties in assessing the relationship between passive smoking and lung cancer. *Statistical Methods in Medical Research* 1998;7(2):137–63.

Lee PN. Simple methods for checking for possible errors in reported odds ratios, relative risks and confidence intervals. *Statistics in Medicine* 1999;18(15):1973–81.

Lee PN, Forey BA. Misclassification of smoking habits as determined by cotinine or by repeated self-report—summary of evidence from 42 studies. *Journal of Smoking-Related Diseases* 1995;6:109–29.

Lee PN, Forey B, Fry JS. Revisiting the association between environmental tobacco smoke exposure and lung cancer risk. III: Adjusting for the biasing effect of misclassification of smoking habits. *Indoor and Built Environment* 2001;10(6):384–98.

Lubin JH. Estimating lung cancer risk with exposure to environmental tobacco smoke. *Environmental Health Perspectives* 1999;107(Suppl 6):879–83.

Matanoski G, Kanchanaraksa S, Lantry D, Chang Y. Characteristics of nonsmoking women in NHANES I and NHANES I Epidemiologic Follow-up Study with exposure to spouses who smoke. *American Journal of Epidemiology* 1995;142(2):149–57.

Misakian AL, Bero LA. Publication bias and research on passive smoking: comparison of published and unpublished studies. *Journal of the American Medical Association* 1998;280(3):250–3.

Morabia A, Bernstein MS, Bouchardy I, Kurtz J, Morris MA. Breast cancer and active and passive smoking: the role of the *N*-acetyltransferase 2 genotype. *American Journal of Epidemiology* 2000;152(3): 226–32.

National Health and Medical Research Council. *The Health Effects of Passive Smoking.* A scientific information paper. Canberra (Commonwealth of Australia): Canberra ACT, 1997.

National Research Council. *Environmental Tobacco Smoke: Measuring Exposures and Assessing Health Effects.* Washington: National Academy Press, 1986.

National Research Council. *Human Exposure Assessment for Airborne Pollutants: Advances and Opportunities.* Washington: National Academy Press, 1991.

Ong EK, Glantz SA. Tobacco industry efforts subverting International Agency for Research on Cancer's second-hand smoke study. *Lancet* 2000; 355(9211):1253–9.

Ong EK, Glantz SA. Constructing "sound science" and "good epidemiology": tobacco, lawyers, and public relations firms. *American Journal of Public Health* 2001;91(11):1749–57.

Pron GE, Burch JD, Howe GR, Miller AB. The reliability of passive smoking histories reported in a case-control study of lung cancer. *American Journal of Epidemiology* 1988;127(2):267–73.

Rampton S, Stauber J. *Trust Us, We're Experts: How Industry Manipulates Science and Gambles with Your Future.* Los Angeles: J.P. Tarcher, 2000.

Rothman KJ, Greenland S. *Modern Epidemiology,* 2nd ed. Philadelphia: Lippincott-Raven, 1998.

Samet JM, Jaakkola JJK. The epidemiologic approach to investigating outdoor air pollution. In: Holgate ST, Samet JM, Koren HS, Maynard RL, editors. *Air Pollution and Health.* San Diego: Academic Press, 1999:431–60.

Scientific Committee on Tobacco and Health. *Report of the Scientific Committee on Tobacco and Health.* London: The Stationery Office, 1998.

Thornton A, Lee P, Fry J. Differences between smokers, ex-smokers, passive smokers and non-smokers. *Journal of Clinical Epidemiology* 1994;47(10):1143–62.

Thun M, Henley J, Apicella L. Epidemiologic studies of fatal and nonfatal cardiovascular disease and ETS exposure from spousal smoking. *Environmental Health Perspectives* 1999;107(Suppl 6):841–6.

Tweedie RL, Mengersen KL. Meta-analytic approaches to dose-response relationships, with application in studies of lung cancer and exposure to environmental tobacco smoke. *Statistics in Medicine* 1995; 14(5–7):545–69.

U.S. Department of Health and Human Services. *The Health Consequences of Smoking: Cancer. A Report of the Surgeon General.* Rockville (MD): U.S. Department of Health and Human Services, Public Health Service, Office on Smoking and Health. 1982. DHHS Publication No. (PHS) 82-50179.

U.S. Department of Health and Human Services. *The Health Consequences of Smoking: Chronic Obstructive Lung Disease. A Report of the Surgeon General.* Rockville (MD): U.S. Department of Health and Human Services, Public Health Service, Office on Smoking and Health, 1984. DHHS Publication No. (PHS) 84-50205.

U.S. Department of Health and Human Services. *The Health Consequences of Involuntary Smoking. A Report of the Surgeon General.* Rockville (MD): U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control, Center for Health Promotion and Education, Office on Smoking and Health, 1986. DHHS Publication No. (CDC) 87-8398.

U.S. Department of Health and Human Services. *Preventing Tobacco Use Among Young People. A Report of the Surgeon General.* Atlanta: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 1994.

U.S. Department of Health and Human Services. *Tobacco Use Among U.S. Racial/Ethnic Minority Groups—African Americans, American Indians and Alaska Natives, Asian Americans and Pacific Islanders, and Hispanics. A Report of the Surgeon General.* Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 1998.

U.S. Department of Health and Human Services. *Healthy People 2010: Understanding and Improving Health.* Washington: U.S. Government Printing Office, 2000.

U.S. Department of Health and Human Services. *Women and Smoking. A Report of the Surgeon General.* Rockville (MD): U.S. Department of Health and Human Services, Public Health Service, Office of the Surgeon General, 2001.

U.S. Department of Health and Human Services. *The Health Consequences of Smoking: A Report of the Surgeon General.* Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2004.

U.S. Department of Health, Education, and Welfare. *Smoking and Health: Report of the Advisory Committee to the Surgeon General of the Public Health Service.* Washington: U.S. Department of Health, Education, and Welfare, Public Health Service, Center for Disease Control, 1964. PHS Publication No. 1103.

U.S. Department of Health, Education, and Welfare. *The Health Consequences of Smoking. A Report of the Surgeon General: 1972.* Washington: U.S. Department of Health, Education, and Welfare, Public Health Service, Health Services and Mental Health Administration, 1972. DHEW Publication No. (HSM) 72-7516.

U.S. Department of Health, Education, and Welfare. *The Health Consequences of Smoking. A Report of the Surgeon General, 1975.* Washington: U.S. Department of Health, Education, and Welfare, Public Health Service, Center for Disease Control, 1975. DHEW Publication No. (CDC) 77-8704.

U.S. Department of Health, Education, and Welfare. *Smoking and Health. A Report of the Surgeon General.* Washington: U.S. Department of Health, Education, and Welfare, Public Health Service, Office of the Assistant Secretary for Health, Office of Smoking and Health, 1979. DHEW Publication No. (PHS) 79-50066.

U.S. Environmental Protection Agency. *Respiratory Health Effects of Passive Smoking: Lung Cancer and Other Disorders.* Washington: U.S. Environmental Protection Agency, Office of Research and Development, Office of Air Radiation, 1992. Report No. EPA/600/6-90/0006F.

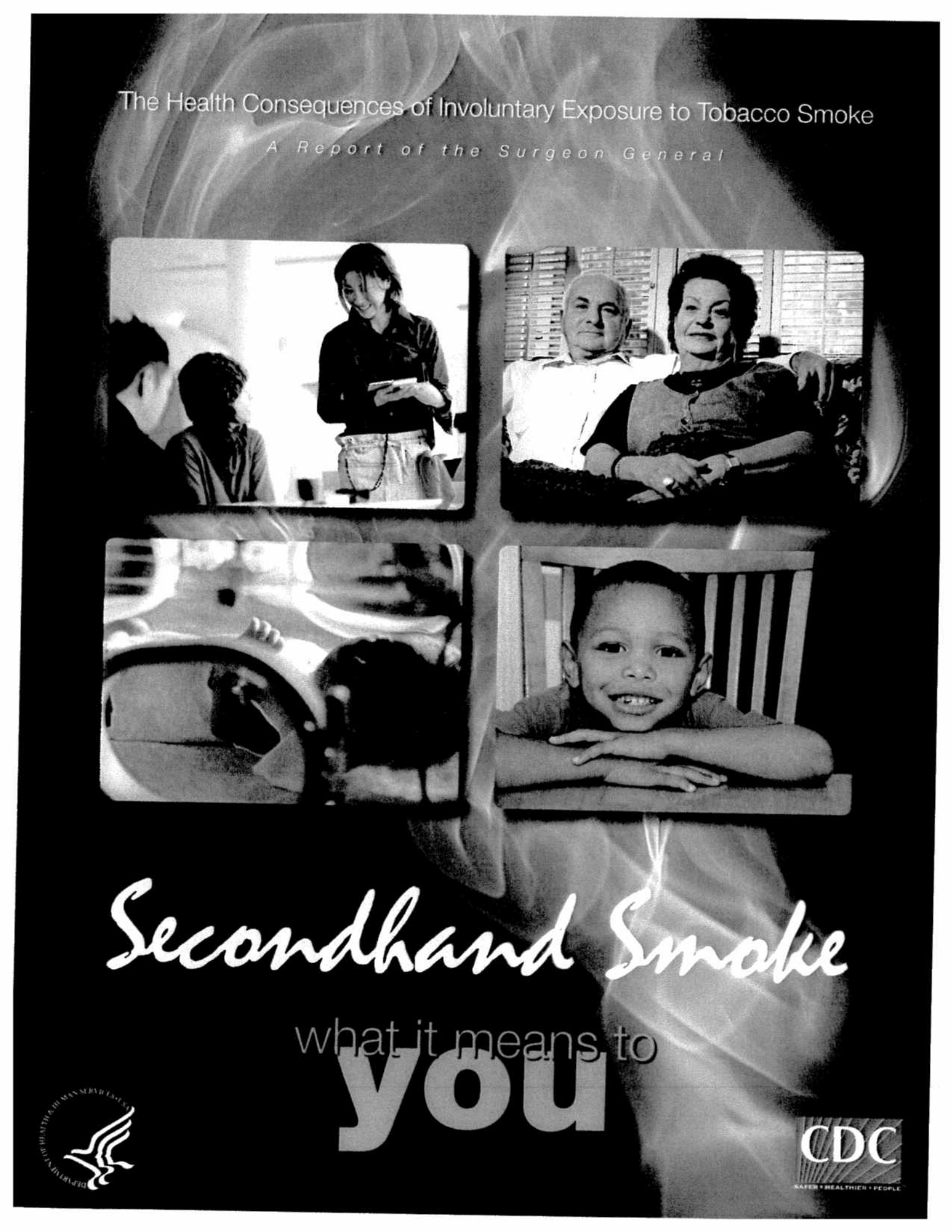
Vandenbroucke JP. Passive smoking and lung cancer: a publication bias? *British Medical Journal (Clinical Research Edition)* 1988;296(6619):391–2.

Wald NJ, Nanchahal K, Thompson SG, Cuckle HS. Does breathing other people's tobacco smoke cause lung cancer? *British Medical Journal (Clinical Research Edition)* 1986;293(6556):1217–22.

World Health Organization. *International Consultation on Environmental Tobacco Smoke (ETS) and Child Health. Consultation Report.* Geneva: World Health Organization, 1999.

Wu AH. Exposure misclassification bias in studies of environmental tobacco smoke and lung cancer. *Environmental Health Perspectives* 1999;107(Suppl 6):873–7.

Yach D, Bialous SA. Junking science to promote tobacco. *American Journal of Public Health* 2001;91(11):1745–8.


The Health Consequences of Involuntary Exposure to Tobacco Smoke
A Report of the Surgeon General
Secondhand Smoke
what it means to
you
CDC
SAFER • HEALTHIER • PEOPLE

Secondhand Smoke

It hurts you.

It doesn't take much.

It doesn't take long.

The 2006 Surgeon General's report has new information about how breathing secondhand smoke hurts your health. You can find more information about this report by going to the Surgeon General's website at **www.surgeongeneral.gov.**

More information is also available by going to the Centers for Disease Control and Prevention (CDC) website at **www.cdc.gov/tobacco.**

Secondhand smoke is dangerous.

The Surgeon General of the United States, working with a team of leading health experts, studied how breathing secondhand tobacco smoke affects you.

This booklet explains what scientists have learned about the dangers of secondhand smoke. It also tells you how to protect yourself and your family.

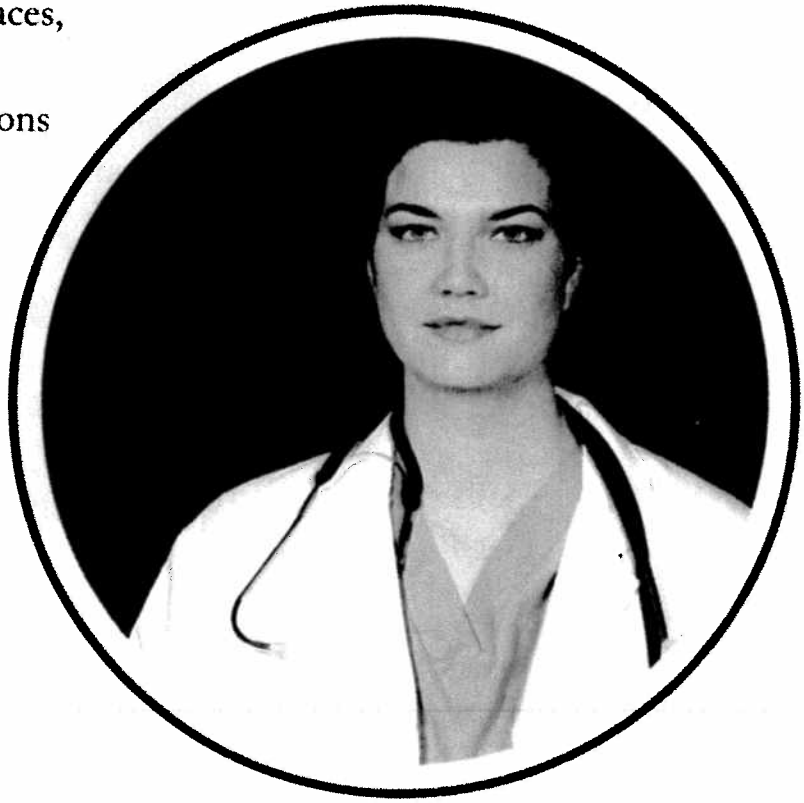
What is secondhand smoke?

When a person smokes near you, you breathe secondhand smoke. Secondhand smoke is the combination of smoke from the burning end of the cigarette and the smoke breathed out by smokers. When you breathe secondhand smoke, it is like you are smoking.

Whether you are young or old, healthy or sick, secondhand smoke is dangerous.

What we now know:

- There is no safe amount of secondhand smoke. Breathing even a little secondhand smoke can be dangerous.
- Breathing secondhand smoke is a known cause of sudden infant death syndrome (SIDS). Children are also more likely to have lung problems, ear infections, and severe asthma from being around smoke.
- Secondhand smoke causes heart disease and lung cancer.
- Separate "no smoking" sections DO NOT protect you from secondhand smoke. Neither does filtering the air or opening a window.
- Many states and communities have passed laws making workplaces, public places, restaurants, and bars smoke-free. But millions of children and adults still breathe secondhand smoke in their homes, cars, workplaces, and in public places.



No amount of secondhand smoke is safe.

When you are around a person who is smoking, you inhale the same dangerous chemicals as he or she does. Breathing secondhand smoke can make you sick. Some of the diseases that secondhand smoke causes can kill you.

Protect yourself: do not breathe secondhand smoke. But completely avoiding secondhand smoke is very hard to do. Most of us breathe it whether we know it or not. You can breathe secondhand smoke in restaurants, around the doorways of buildings, and at work. When someone smokes inside a home, everyone inside breathes secondhand smoke. Some children even breathe smoke in day care.

There is no safe amount of secondhand smoke. Children, pregnant women, older people, and people with heart or breathing problems should be especially careful. Even being around secondhand smoke for a short time can hurt your health. Some effects are temporary. But others are permanent.

WHAT CAN YOU DO?

Make your environment smoke-free.

- *Make your home and car smoke-free.*
- *Visit smoke-free restaurants and public places.*
- *Ask people not to smoke around you and your children.*

Secondhand smoke contains poisons.

The chemicals found in secondhand smoke hurt your health and many are known to cause cancer. You breathe in thousands of chemicals when you are around someone who is smoking.

WHAT THE SCIENCE SAYS

How do scientists measure exposure to secondhand smoke?

Researchers measure

- how many people are smoking
- how many cigarettes they smoke
- time spent in the room
- levels of nicotine in the air, and
- levels of nicotine by-products in the body

Secondhand Smoke
is toxic

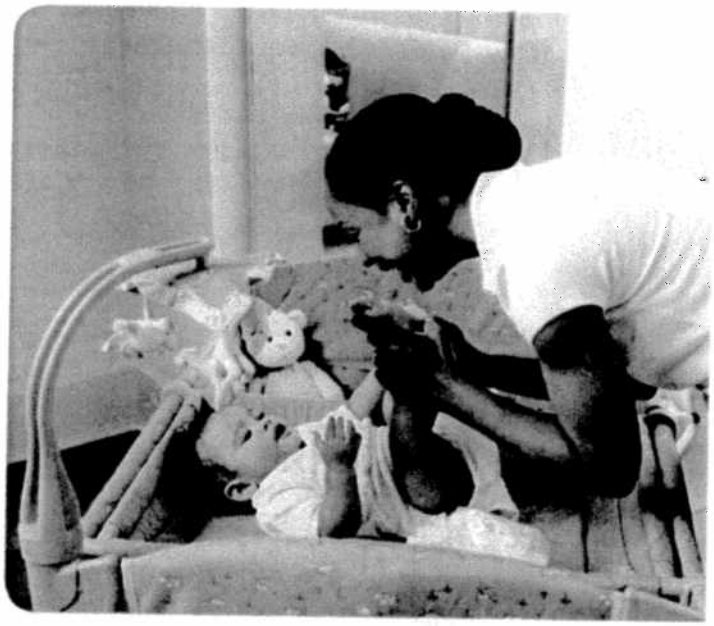

Secondhand Smoke
causes death and sickness in children.
Breathing secondhand smoke is a known cause of sudden infant death syndrome (SIDS).
Children are also more likely to have lung problems, ear infections, and severe asthma.

Babies are hurt by secondhand smoke.

Tobacco smoke harms babies before and after they are born. Unborn babies are hurt when their mothers smoke or if others smoke around their mothers. Babies also may breathe secondhand smoke after they are born. Because their bodies are developing, poisons in smoke hurt babies even more than adults. Babies under a year old are in the most danger.

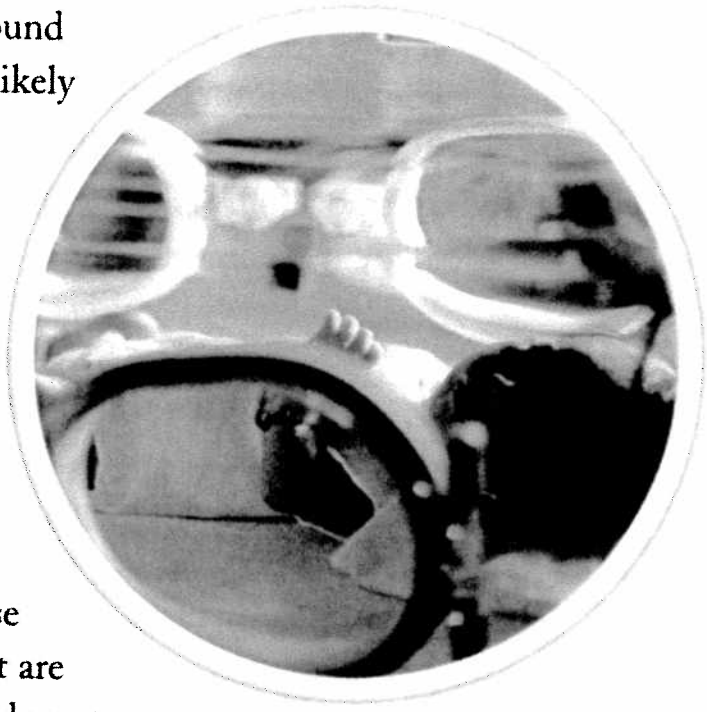
Secondhand smoke is a known cause of sudden infant death syndrome (SIDS).

The sudden, unexplained, unexpected death of an infant before age 1 year is known as SIDS. The exact way these deaths happen is still not known. We suspect it may be caused by changes in the brain or lungs that affect how a baby breathes. During pregnancy, many of the compounds in secondhand smoke change the way a baby's brain develops. Mothers who smoke while pregnant are more likely to have their babies die of SIDS.



Babies who are around secondhand smoke—from their mother, their father, or anyone else—after they are born, are also more likely to die of SIDS than children who are not around secondhand smoke.

Secondhand smoke causes low birth weight and lung problems in infants.



Babies whose mothers are around secondhand smoke are more likely to have lower birth weights. These babies can have more health problems because they breathe smoke. For example, they are more likely to have infections than babies who are not around secondhand smoke.

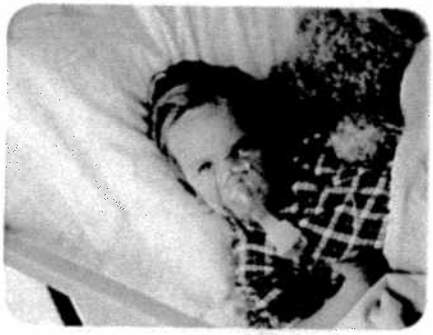
Studies show that babies whose mothers smoke while pregnant are more likely to have lungs that do not develop in a normal way. Babies who breathe secondhand smoke after birth also have weaker lungs. These problems can continue as they grow older and even when they become adults.

WHAT THE SCIENCE SAYS

The main place young children breathe secondhand smoke is in their homes. Almost 3 million children in the United States under the age of 6 years old breathe secondhand smoke at home at least 4 days per week.

Older children are in danger, too. Studies show that older children whose parents smoke get sick more often. Like babies, their lungs grow less than children who do not breathe secondhand smoke. They get more bronchitis and pneumonia. Wheezing and coughing are also more common in children who breathe secondhand smoke.

Secondhand smoke can trigger an asthma attack in a child. Children with asthma who are around secondhand smoke have worse asthma attacks and have attacks more often. More than 40 percent of children who go to the emergency room for asthma live with smokers. A severe asthma attack can put a child's life in danger.

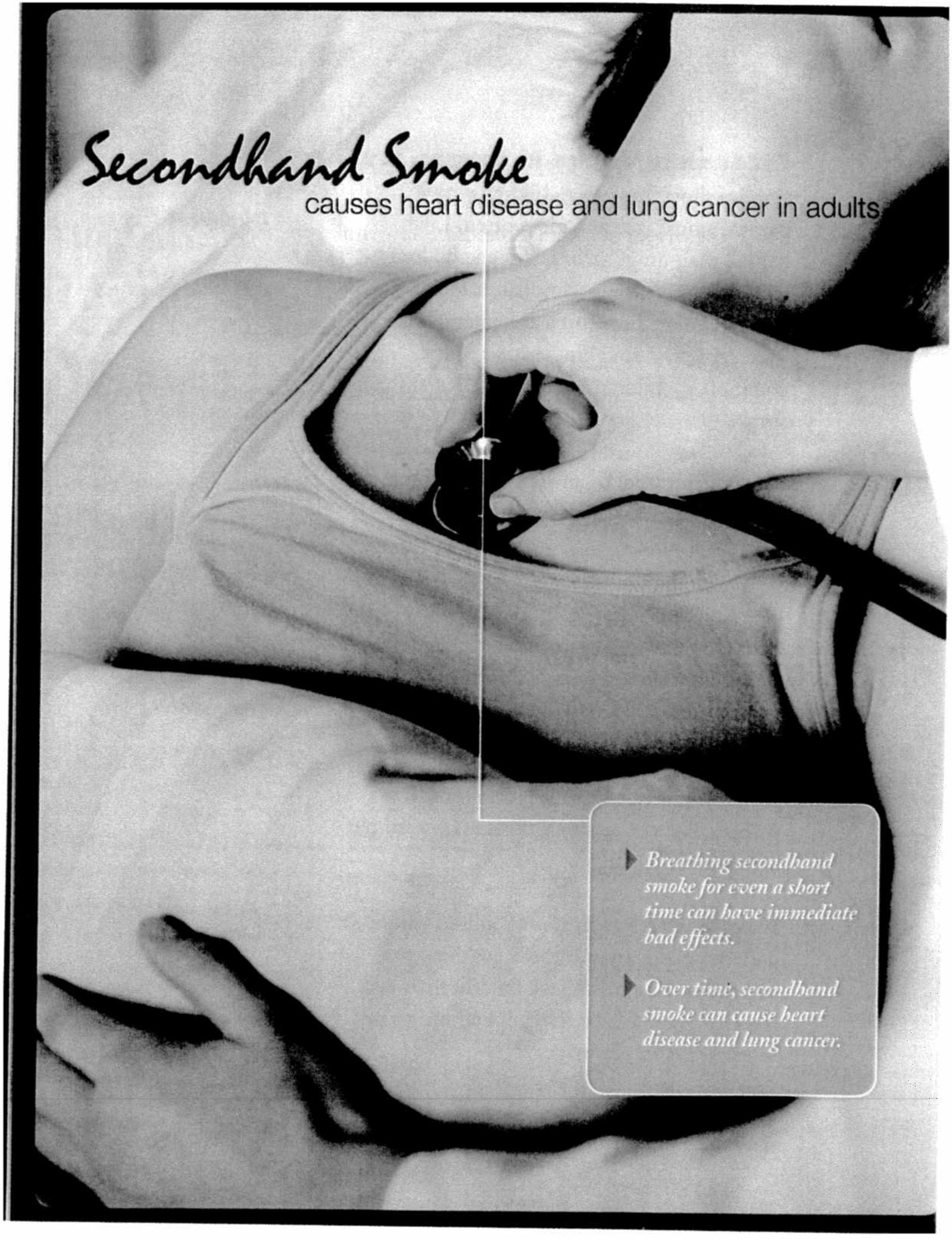


Ear infections are painful. Children whose parents smoke around them get more ear infections. They also have fluid in their ears more often and have more operations to put in ear tubes for drainage.

WHAT CAN PARENTS DO?

Protect your children's health.

- *Do not allow anyone to smoke near your child.*
- *Do not smoke or allow other to smoke in your home or car. Opening a window does not protect your children from smoke.*
- *Use a smoke-free day care center.*
- *Do not take your child to restaurants or other indoor public places that allow smoking.*
- *Teach older kids to stay awa from secondhand smoke.*


Secondhand Smoke
causes heart disease and lung cancer in adults.
Breathing secondhand smoke for even a short time can have immediate bad effects.
Over time, secondhand smoke can cause heart disease and lung cancer.

Secondhand smoke hurts adults too.

The longer you are around secondhand smoke, the more likely it is to hurt you.

Nonsmokers who breathe smoke at home or at work are more likely to become sick and die from heart disease and lung cancer. Studies show that secondhand smoke may cause other serious diseases, too.

Secondhand smoke is bad for your heart.

Breathing secondhand smoke makes the platelets in your blood behave like those of a regular smoker. Even a short time in a smoky room causes your blood platelets to stick together. Secondhand smoke also damages the lining of your blood vessels. In your heart, these bad changes can cause a deadly heart attack.

Secondhand smoke changes how your heart, blood, and blood vessels work in many ways. Adults who breathe 5 hours of secondhand smoke daily have higher "bad" cholesterol that clogs arteries.

WHAT CAN YOU DO?

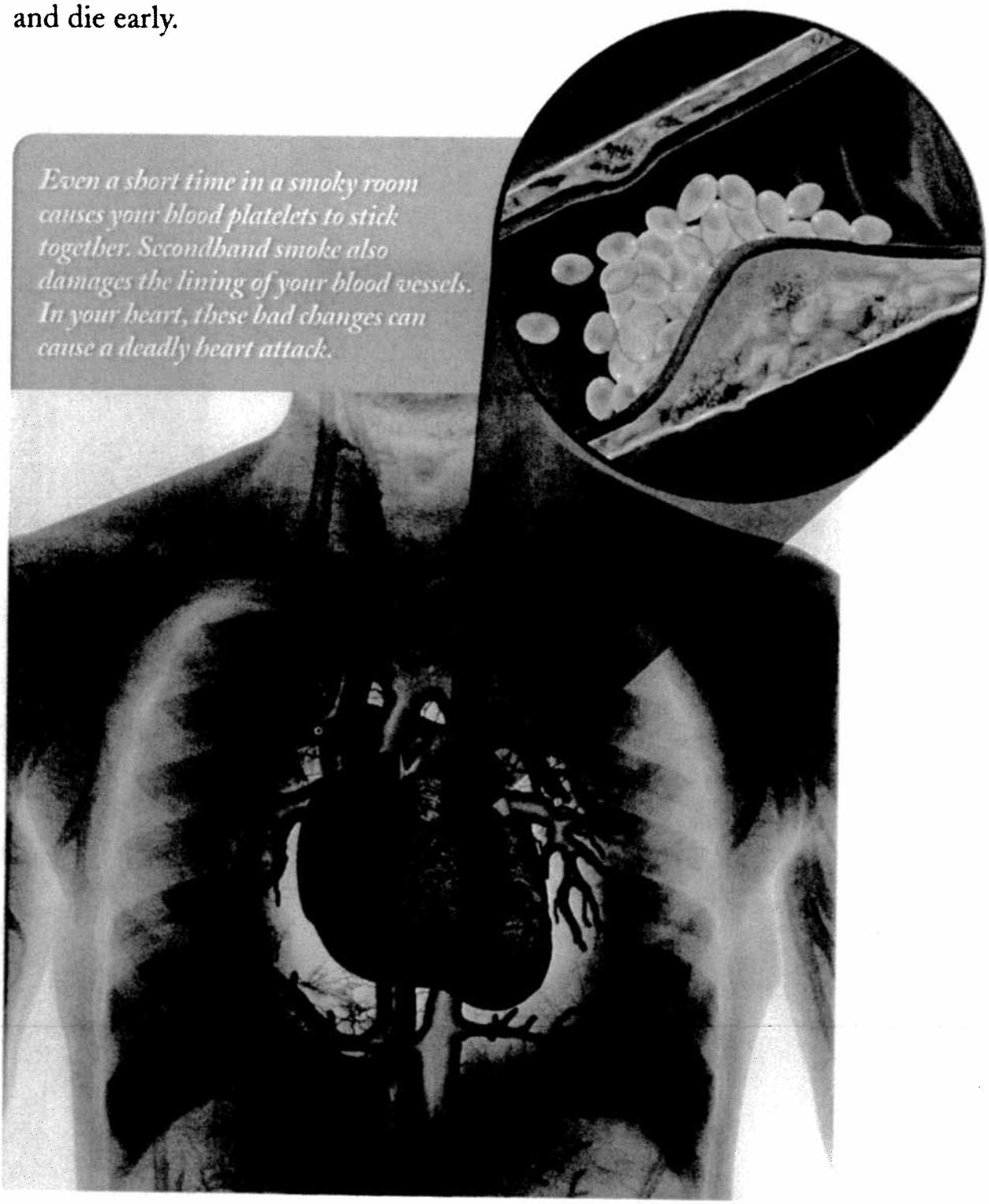
Protect your health

More restaurants and bars are smoke-free than ever. New York City restaurants and bars increased business by 9 percent after becoming smoke-free.

- *Choose restaurants and bars that are smoke-free. Thank them for being smoke-free.*
- *Let owners of businesses that are not smoke-free know that smoke bothers you. Tell them a "no smoking" section is not good enough.*

People who have heart disease should be very careful not to go where they will be around secondhand smoke.

The bottom line is that breathing secondhand smoke makes it more likely that you will get heart disease, have a heart attack, and die early.



Even a short time in a smoky room causes your blood platelets to stick together. Secondhand smoke also damages the lining of your blood vessels. In your heart, these bad changes can cause a deadly heart attack.

Secondhand smoke hurts your lungs.

Secondhand smoke includes many chemicals that are dangerous for your lungs. Secondhand smoke is especially dangerous for young children and adults with heart and lung disease.

Secondhand smoke causes lung cancer.

Secondhand tobacco smoke contains the same cancer-causing chemicals that smokers inhale.

Secondhand smoke causes lung cancer in adults who don't smoke. Breathing in secondhand smoke at home or work increases your chances of getting lung cancer by 20 percent to 30 percent.

Even if you don't smoke, breathing secondhand smoke increases your chances of getting lung cancer.

WHAT CAN HEALTH CARE EXPERTS DO?

- *Ask patients if they smoke and if they are around secondhand smoke.*
- *Advise patients who smoke to stop, and help them quit.*
- *Advise patients who smoke not to smoke around others.*
- *Advise nonsmokers to protect themselves by avoiding all secondhand smoke.*
- *Remind parents to protect their children from secondhand smoke.*
- *Discuss the added dangers of secondhand smoke for adults who have heart disease or asthma.*
- *Offer special warnings to parents when treating children with respiratory infections, asthma, or ear disease.*

WHAT CAN EMPLOYERS DO?

Protect your workers.

Secondhand smoke is harmful for all workers. Restaurant and bar workers breathe more secondhand smoke than other workers and have higher rates of lung cancer.

- *Make sure your employees do not breathe secondhand smoke at work.*
- *Make all indoor places smoke-free.*
- *Don't allow smoking near doorways and entrances.*
- *Offer programs to help employees quit smoking.*

Secondhand smoke causes other breathing problems.

Secondhand smoke affects how well your lungs work, especially if you already have asthma or other breathing problems. Being around smoke makes you more congested and cough more.

Secondhand smoke also irritates your skin, eyes, nose, and throat. If you have allergies or a history of breathing problems, secondhand smoke can make you even sicker.

WARNING

You should especially speak to your doctor or healthcare provider about the dangers of secondhand smoke if:

- **You have breathing or heart problems**
- **You are pregnant**
- **You are concerned about your children's health**

Secondhand smoke may cause disease in other parts of your body. We know that smoking causes many forms of cancer. Scientists believe even a little tobacco smoke is dangerous. Scientists also believe secondhand smoke may cause other diseases throughout your body. They are doing studies on possible links to stroke, breast cancer, nasal sinus cancer, and chronic lung problems in children and adults.

Secondhand smoke may cause disease in other parts of your body.

There's no such thing as a

NO SMOKING

section

No amount of secondhand smoke is safe.

Here are some unexpected ways you may breathe secondhand smoke every day:

- *Sitting in the "no smoking" section, even if it doesn't smell smoky*
- *Riding in a car while someone else is smoking, even if a window is open*
- *Being in a house where people are smoking, even if you're in a another room*
- *Working in any restaurant, warehouse, or building that allows smoking inside, even if there is a filter or ventilation system*

Acknowledgments

This public document was prepared by the U.S. Department of Health and Human Services under the direction of the Office of the Surgeon General to make information in *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General* available to everyone.

Richard H. Carmona, M.D., M.P.H., F.A.C.S., Surgeon General, U.S. Public Health Service, Office of the Surgeon General, Office of the Secretary, Washington, D.C.

Kenneth P. Moritsugu, M.D., M.P.H., Deputy Surgeon General, U.S. Public Health Service, Office of the Surgeon General, Office of the Secretary, Washington, D.C.

A special thanks to the many people who provided expert advice and suggestions: Dr. Jonathan Samet, Senior Scientific Editor of the 2006 Surgeon General's report and Professor and Chairman, Department of Epidemiology, Bloomberg School of Public Health, Johns Hopkins University; Dr. Karen Near, Senior Science Advisor, Office of the Surgeon General, DHHS; Ellen Field, Deputy Assistant Secretary, DHHS; Dr. Terry Pechacek, Associate Director for Science, Office on Smoking and Health, CDC; Leslie Norman, Managing Editor of the 2006 Surgeon General's report, CDC; Dana Shelton, Associate Director for Policy, Planning and Coordination, Office on Smoking and Health, CDC; Peggy Williams, Writer-Editor, Quantell, Inc.; Gabrielle Robinson, Writer-Editor, Northrop Grumman; the CDC Health Literacy Workgroup; Dr. P. Lynne Stockton, CDC; Victoria Barnard, Teacher, Chamblee High School; Tommy Jones, Reviewer; and the scientific and communications staff of the Office on Smoking and Health, CDC.

Project Leads, Writers, and Editorial Assistance
Sarah Gregory, Health Communications Specialist, CDC
Peter Xiques, Writer, Science Applications International Corporation
Vickie Reddick, Writer, Science Applications International Corporation

Graphic Design
C. Mark Van Hook, Graphic Designer, Science Applications International Corporation

About
the Surgeon General's Report

The Surgeon General is the nation's highest-ranking health officer. The President appoints the Surgeon General to help promote and protect the health of all Americans.

The Surgeon General gives Americans the best scientific information available on how to improve their health and reduce their risk of illness and injury.

The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General was prepared by many of the country's leading scientists and public health experts. The full report is more than 600 pages long. It took more than 4 years to complete. It is written for a scientific audience. However, Surgeon General Richard H. Carmona believes the findings are very important to everyone.

Suggested Citation: U.S. Department of Health and Human Services. *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General. Secondhand Smoke What It Means to You*. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2006.

Secondhand Smoke

It hurts you.

It doesn't take much.

It doesn't take long.

To download copies of this booklet or the full Surgeon General's report, *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General*, go to **www.cdc.gov/tobacco**. To order single copies of these documents, call toll free **1-800-CDC-INFO**.

For more information

For more information on secondhand smoke, talk to your doctor, nurse, pharmacist, or other healthcare professional.

More information about the Surgeon General's report is available on the Surgeon General's website at

www.surgeongeneral.gov

More facts and advice are available from
Centers for Disease Control and Prevention
www.cdc.gov/tobacco
Toll free: **1-800-CDC-INFO** (1-800-232-4636)
In English, en Español
24 hours/day, 7 days/week
Text telephone for hearing impaired: **1-888-232-6348**
Other helpful information is available at www.smokefree.gov.
To access a telephone quitline serving your area, call
1-800-QUIT-NOW (1-800-784-8669).

COMMITTEE ON RULES
I Mina'Trenta na Liheslaturan Guåhan • 30th Guam Legislature
155 Hesler Place, Hagatña, Guam 96910 • tel: (671)472-7679 • fax: (671)472-3547 • roryforguam@gmail.com

April 27, 2009

2009 APR 27 PM 1:31

MEMORANDUM

To: **Clerk of the Legislature**
I Mina' Trenta Na Liheslaturan Guåhan

Attorney Therese M. Terlaje, Legislative Legal Counsel
I Mina' Trenta Na Liheslaturan Guåhan

From: **Senator Rory J. Respicio**
Chairperson, Committee on Rules

Subject: **Referral of Bill No. 101**

As Chairperson of the Committee on Rules, I am forwarding my referral of Bill No. 101.

Please ensure that the subject Bill is referred, in my name, to the respective Chairperson, as shown on the attachment. I also request that the same be forwarded to all Senators of *I Mina' Trenta Na Liheslaturan Guåhan.*

Should you have any questions, please contact Elaine V. Tajalle at 472-7679.

Si Yu'os Ma'åse'!

Attachment

Bill Referral 4/27/09

Bill	Sponsor	Description	Date Introduced	Date Referred	Committee Referred
101 (COR)	B. J.F. Cruz, Judith P. Guthertz, DPA, R. J. Respicio	AN ACT TO AMEND §90105 OF CHAPTER 90, TITLE 10, GUAM CODE ANNOTATED; RELATIVE TO SMOKING WITHIN TWENTY (20) FEET OF AN ENTRANCE OF A PUBLIC PLACE WHERE SMOKING IS PROHIBITED	4/24/09	4/27/09	Committee on Economic Development, Health and Human Services and Judiciary

COMMITTEE ON ECONOMIC DEVELOPMENT, HEALTH AND HUMAN SERVICES, AND JUDICIARY

***I Mina'Trenta Na Liheslaturan Guåhan* • 30th Guam Legislature**

238 Archbishop F.C. Flores St., DNA Bldg., Suite 701A, Hagatña, Guam 96910
Tel: (671) 969-1495/6 • Fax: (671) 969-1497 • Email: aguon4guam@gmail.com

July 07, 2009

Ms. Lourdes M. Perez
Director
Department of Administration
Hatagna, Guam 96910

Re: Notice of Public Hearing

Dear Ms. Perez,

Buenas yan Hafa Adai!

The Committee on Economic Development, Health & Human Services, and Judiciary will be conducting a public hearing on **Wednesday, July 15, 2009** beginning at **8:00 am** at the Guam Legislature Public Hearing Room.

Bill No. 101 (COR) – "An act to *amend* §90105 of Chapter 90, Title 10, Guam Code Annotated; relative to smoking within twenty (20) feet of an entrance of a public place where smoking is prohibited", will be on the agenda.

I would like to thank you for providing written testimony on Bill No. 101 (COR). I also invite the participation of you and your staff at this public hearing. All written testimony may be emailed, faxed or hand-delivered to Senator Aguon's office no later than Monday, July 13, 2009.

If you have any question, please contact Frances Lizama at Senator Aguon's office.

Un Dangkulo' Na Si Yu'us Ma'ase'.

Respectfully,

ADOLPHO B. PALACIOS, SR.
Acting Chairman
I Mina'Trenta Na Liheslaturan Guåhan
(30th Guam Legislature)

Cc: Vice-Speaker B.J.F. Cruz

HP Officejet 6310
Personal Printer/Fax/Copier/Scanner

Log for
Sen. Frank B. Aguon, Jr.
(671) 969-1497
Jul 08 2009 11:54AM

Last Transaction

Date	Time	Type	Station ID	Duration	Pages	Result
Jul 8	11:53AM	Fax Sent	4776788	0:34	1	OK

COMMITTEE ON ECONOMIC DEVELOPMENT, HEALTH AND HUMAN SERVICES, AND JUDICIARY

***I Mina'Trenta Na Liheslaturan Guåhan* • 30th Guam Legislature**

238 Archbishop F.C. Flores St., DNA Bldg., Suite 701A, Hagatña, Guam 96910
Tel: (671) 969-1495/6 • Fax: (671) 969-1497 • Email: aguon4guam@gmail.com

July 07, 2009

MEMORANDUM

TO: **Honorable Senators/Committee Members**
Committee on Economic Development, Health & Human Services, and Judiciary

FROM: **SENATOR ADOLPHO B. PALACIOS, SR.**
Acting Chairman

SUBJECT: **First Notice – Notice of Public Hearing**
Wednesday, July 15, 2009 – 8:00 am

Buenas yan Hafa Adai!

Please be advised that the Committee on Economic Development, Health & Human Services, and Judiciary will be conducting a public hearing on **Wednesday, July 15, 2009,** beginning at **8:00 am** in the Guam Legislature Public Hearing Room.

Please find attached agenda for this public hearing. Should you have any questions, please call Frances Lizama at Senator Aguon's office.

Un dangkulo' na Si Yu'us Ma'ase'.

Attachment (1)

Cc: Sergeant-at-Arms/Protocol/AV
Stephanie Mendiola, COR
Clerk of the Legislature
MIS

1ST NOTICE - NOTICE OF PUBLIC HEARING Inbox x

from **Frances Lizama** <lizama.frances@gmail.com> hide details Jul 8 (2 days ago) Reply
to "SEN. ADA, Thomas C." <Tom@senatorada.org>,
"SEN. BLAS, Frank F., Jr." <frank.blasjr@gmail.com>,
"SEN. CALVO, Eddie J.B." <sencalvo@gmail.com>,
"SEN. CRUZ, Benjamin J.F." <senadotbjcruz@aol.com>,
"SEN. ESPALDON, James V." <senator@espaldon.com>,
"SEN. ESPALDON, James V." <senjim@ite.net>,
"SEN. GUTHERTZ, Judith P." <judiguthertz@pticom.com>,
"SEN. MUNA BARNES, Tina Rose" <tinamunabarnes@gmail.com>,
"SEN. PALACIOS, Adolpho B., Sr." <abpalacios@gmail.com>,
"SEN. PANGELINAN, ben" <senbenp@guam.net>,
"SEN. RECTOR, Matt" <matt@mattrector.com>,
"SEN. RESPICIO, Rory J." <roryforguam@gmail.com>,
"SEN. TAITAGUE, Telo" <senatortelo@gmail.com>,
"SEN. TENORIO, Ray" <ray@raytenorio.com>,
"SEN. WON PAT, Judi" <speaker@judiwonpat.com>
cc "BLAS, Roland - Spkr Won Pat's Ofc." <roland@judiwonpat.com>,
"BORJA, Dominic - Sen. Ada's Ofc." <dominic@senatorada.org>,
"BURGOS, Fred - Sen. Rector's Ofc." <fred@mattrector.com>,
"CASTRO, James P. - Sen. Blas Ofc." <jamespcastro@gmail.com>,
"CIPOLLONE, Lisa - Sen. Pangelinan's ofc." <cipo@guam.net>,
"CEPEDA, Patrick - Sen. Palacios' Ofc." <patrickcepeda@hotmail.com>,
"DUARTE, Mark - Spkr Won Pat's Ofc." <mark@judiwonpat.com>,
"DUENAS, Mona - Sen. Espaldon's Ofc." <mona.duenas@gmail.com>,
delta9mario@gmail.com,
dot@guamlegislature.org,
"DEFENSOR, Sahara - Spkr Won Pat's Ofc." <sahara@judiwonpat.com>,
"DIAZ, Jonathan - Sen. Palacios' Ofc." <jonbdiaz@gmail.com>,
elg@guamlegislature.org,
"EVARISTO, Jessica - Sen. Tenorio's Ofc." <jessica@raytenorio.com>,
"FEJERAN, Mary - Sen. Blas' Ofc." <maryfejeran@gmail.com>,
"HILLS, Derick - Spkr Won Pat's Ofc." <derickhills@live.com>,
"KOMIYAMA, Velma - Sen. Barnes' Ofc." <vel.komiyama@yahoo.com>,
"LIDIA, Mike - Sen. Cruz ofc." <mike.lidia9@gmail.com>,
"LG, Phillip - Sen. Tenorio's Ofc." <phill@raytenorio.com>,
"MENDIOLA, Stephanie - Sen. Respicio's Ofc." <sem@guamlegislature.org>,
"MANIBUSAN, Lauriel - Sen. Espaldon's Ofc." <laurielisla@gmail.com>,
"QUITUGUA, Tony" <tq@guamlegislature.org>,
"QUINATA, Carl - Sen. Taitague's Ofc." <ciquinata@gmail.com>,
"ROBERTO, Phil - Sen. Espaldon's Ofc." <roberto.phil@gmail.com>,
"TABONARES, Gina" <aguonmedia@gmail.com>,
"TAJALLE, Elaine - Sen. Respicio's Ofc." <elainevtll@gmail.com>,
"TORRES, Frank B. - Spkr Won Pat's Ofc." <fbtorres@judiwonpat.com>,
"TORRES, Frank B. - Spkr Won Pat's Ofc." <fbtorres@yahoo.com>,
"UNPINGCO, Joy - Sen. Calvo's Ofc." <joyunpingco@gmail.com>,
"WYTTENBACH-SANTOS, Richard - Sen. Guthertz Ofc." <doc.wyttenbachsantos@gmail.com>,
"WHEELER, Mary Lou" <mlwheeler2000@yahoo.com>,
teddytaz@ite.net,
teddytaz_222@yahoo.com
date Wed, Jul 8, 2009 at 10:25 AM
subject 1ST NOTICE - NOTICE OF PUBLIC HEARING
mailed-by gmail.com

TO ALL:

Attached is a memo from Sen. Palacios, Acting Chairman which serves as 1st Notice of Public Hearing, scheduled for July 15, 2009. Should you have any questions, please free to call our office. Thank you.

–
FRANCES S. LIZAMA
Office of Senator Frank B. Aguon, Jr.
30th Guam Legislature
Committee on Economic Development,
Health & Human Services, and Judiciary
238 Archbishop F.C. Flores St.
DNA Bldg (old PDN), Suite 701A
Hagatna, Guam 96910
Tel: 671.969.1495/6
Fax: 671.969.1497

P.H. 2009.07.15 - B.101 ~ B.135, B.138 - 1st Notice.pdf
805K View Download

Reply Reply to all Forward

from **Frances Lizama** <lizama.frances@gmail.com> hide details Jul 8 (2 days ago) Reply
to "DE CASTRO, Chris - MIS" <cdecastro@guamlegislature.org>,
"PAK, Yong - MIS" <yong@guamlegislature.org>,
"LG, Joe - Sgt-at-Arms" <sgtarms@guamlegislature.org>,
"SANTOS, Pat - Clerk's Ofc." <psantos@guamlegislature.org>,

"TERLAJE, Flo - Clerk's Ofc." <fterlaje@guamlegislature.org>,
Therese Terlaje <tterlaje@guam.net>
date Wed, Jul 8, 2009 at 10:41 AM
subject 1ST NOTICE - NOTICE OF PUBLIC HEARING
mailed-by gmail.com

- Show quoted text -

P.H. 2009.07.15 - B.101 ~ B.135, B.138 - 1st Notice.pdf
805K View Download

COMMITTEE ON ECONOMIC DEVELOPMENT, HEALTH AND HUMAN SERVICES, AND JUDICIARY

***I Mina'Trenta na Liheslaturan Guåhan* • 30th Guam Legislature**

238 Archbishop F.C. Flores St., DNA Bldg., Suite 701A, Hagatña, Guam 96910
Tel: (671) 969-1495/6 • Fax: (671) 969-1497 • Email: aguon4guam@gmail.com

July 07, 2009

MEMORANDUM

TO: **MEDIA**

Pacific Daily News – 477-3079	KUAM – 637-9870
Pacific News Center – 477-0793	K-57/Power 98 – 477-3982
Hit Radio 100 – 472-7663	K-Stereo/KISH – 477-6411
Marianas Variety – 648-2007	I-94 – 637-9865
Glimpses – 649-8883	Adventist Radio – 565-2983
Joy 92 FM – 477-4678	KPRG - 734-2958

Guam Broadcast Services – 648-0104

FROM: **SENATOR ADOLPHO B. PALACIOS, SR.**
Acting Chairman

SUBJECT: **First Notice** – Notice of Public Hearing
Wednesday, July 15, 2009 – 8:00 am

Buenas yan Hafa Adai!

Please be advised that the Committee on Economic Development, Health & Human Services, and Judiciary will be conducting a public hearing on **Wednesday, July 15, 2009**, beginning at **8:00 am** in the Guam Legislature Public Hearing Room.

Please see attached agenda for this public hearing. If you have any questions, please call Frances Lizama at Senator Aguon's office.

Un Dangkulo' Na Si Yu'us Ma'ase'.

Attachment (1)

HP Officejet 6310
Personal Printer/Fax/Copier/Scanner

Log for
Sen. Frank B. Aguon, Jr.
(671) 969-1497
Jul 08 2009 10:16AM

NOTE: Blocked calls are not displayed on this report.
For more information, see Junk Fax Report and the Caller ID History report.

Last 30 Transactions

Date	Time	Type	Station ID Caller ID	Duration	Pages	Result
Jul 1	6:29AM	Received	 6716322492	0:45	0	No fax
Jul 1	8:58AM	Received	6490145 6716490145	0:31	1	OK
Jul 2	9:06AM	Received	 6714725022	0:31	2	OK
Jul 6	10:37AM	Received	6716475684 6716475684	0:49	2	OK
Jul 6	4:13PM	Fax Sent	6482007	0:31	1	OK
Jul 7	8:17AM	Received	1111 6714758805	0:22	1	OK
Jul 7	8:53AM	Received	 6714725022	0:40	2	OK
Jul 7	10:21AM	Received	6490145 6716490145	0:35	1	OK
Jul 7	10:56AM	Received	6482007 6716482007	0:33	1	OK
Jul 7	3:27PM	Received	6482007 6716482007	0:47	2	OK
Jul 7	4:01PM	Fax Sent	6482007	1:05	1	Error 350
Jul 7	5:10PM	Received	4723510 6714723589	0:19	1	OK
Jul 8	9:33AM	Received	6482007 6716482007	0:46	2	OK
Jul 8	9:36AM	Fax Sent	4773079 PDN	1:37	2	OK
Jul 8	9:38AM	Fax Sent	4770793 PNC	1:03	2	OK
Jul 8	9:40AM	Fax Sent	4727663 Hit Radio 100	0:56	2	OK
Jul 8	9:41AM	Fax Sent	6482007 Marianas Variety	1:02	2	OK
Jul 8	9:50AM	Fax Sent	6498883 Glimpses	0:56	2	OK
Jul 8	9:52AM	Fax Sent	4774678 Joy 92	0:57	2	OK
Jul 8	9:53AM	Fax Sent	6480104 Guam Broadcast Services	1:02	2	OK
Jul 8	9:55AM	Fax Sent	6379870 KUAM	1:05	2	OK
Jul 8	9:57AM	Fax Sent	4773982 [illegible]	0:57	2	OK
Jul 8	9:58AM	Fax Sent	4776411 [illegible]	1:24	2	OK
Jul 8	10:01AM	Fax Sent	6379865 I-94	0:59	2	OK
Jul 8	10:02AM	Fax Sent	4776411 K-Stereo	1:38	2	OK
Jul 8	10:04AM	Fax Sent	5652983 Adventist Radio	4:27	2	OK
Jul 8	10:09AM	Fax Sent	7342958 KPRG	2:27	2	OK
Jul 8	10:13AM	Fax Sent	4771812 Tony Lamorena	0:31	1	OK
Jul 8	10:14AM	Fax Sent	4725003 Dr. Nerissa Britania-Schaffer	0:36	1	OK
Jul 8	10:15AM	Fax Sent	4750597 GCPB	0:28	1	OK

1ST NOTICE - NOTICE OF PUBLIC HEARING

from **Frances Lizama** <lizama.frances@gmail.com> hide details Jul 8 (2 days ago) Reply
to "GLIMPSES - PALACIOS, Ivan" <reporter1@glimpsesofguam.com>,
"K57 / POWER 98 - GIBSON, Ray" <rgibson@k57.com>,
"KSTO/KISH - PEREZ, Alicia" <kstonews@ite.net>,
"KUAM - MATANANE, Sabrina" <sabrina@kuam.com>,
"MELYAN, Catriona - PDN" <cmelyan@guampdn.com>,
"PDN - DALENO, Gaynor" <gdumat-ol@guampdn.com>,
"PNC - DELGADO, Nick" <news@spbguam.com>,
"PNC - SEBASTIAN, Stephen" <ssebastian@spbguam.com>
date Wed, Jul 8, 2009 at 10:44 AM
subject 1ST NOTICE - NOTICE OF PUBLIC HEARING
mailed-by gmail.com

TO ALL:

Attached is a memo from Sen. Palacios, Acting Chairman, Comm. on Economic Development, Health & Human Services, and Judiciary reference to public hearing on July 15, 2009.

--
FRANCES S. LIZAMA
Office of Senator Frank B. Aguon, Jr.
30th Guam Legislature
Committee on Economic Development,
Health & Human Services, and Judiciary
238 Archbishop F.C. Flores St.
DNA Bldg (old PDN), Suite 701A
Hagatna, Guam 96910
Tel: 671.969.1495/6
Fax: 671.969.1497

PH 2009.07.15 - B.101 ~ B.135, B.138 - 1st Notice.pdf
825K View Download

Distance Education within easy reach at UOG

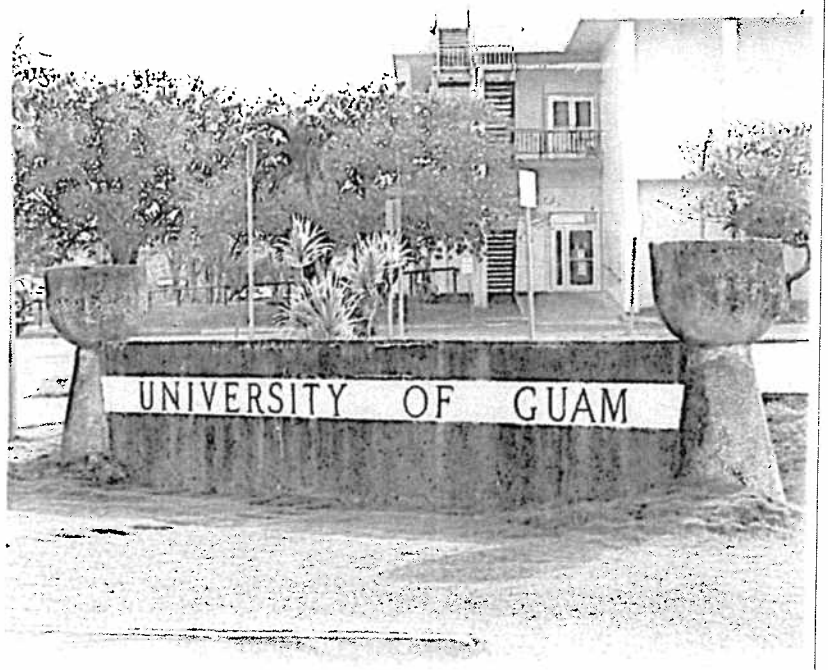


Photo by Wikimedia

(UOG) – THE UNIVERSITY of Guam will hold a Distance Education training/workshop on July 14. Assistant professor in the College of Education at the University of Hawaii, Manoa Kavita Rao, will be the featured presenter.

Distance education – or distance learning as it is often called – is a student-centered instructional format that allows learners (students) to take courses without having to commit to regular campus attendance. Rather than attending courses in person, teachers and students may communicate at times of their own choosing by exchanging printed or electronic media, or through technology that allows them to communicate in real time and through other online methods.

The biggest driver of distance learning has been due to social changes. Over the years, individuals, institutions, businesses and the military have continuously sought alternative means of access to higher education as they strive to cope with lifestyles and changing demands of the economies and societies in which they live.

Areas to be covered in the UOG workshop include best practices in Distance Education for rural settings; technologies that work for Pacific island scenarios; and addressing cross-cultural and local contexts in Micronesia.

The workshop will also review a quarter century of lessons learned with the Micronesia experience. Presenters will discuss considerations for bachelors and masters programs online, instructional strategies for virtual classes, and addressing the needs and preferences of students via distance education.

Participants will receive some hands-on practice with distance education technologies, such as Moodle and Elluminate, social software that supports group communication and is used in distance learning environments.

The workshop is free of charge and will be held in the new distance education classroom next to the Science Building on the Mangilao campus. The workshop starts at 9:45 a.m. Persons interested in registering for this exciting training workshop may contact Verna Marquez at vernabm@uguam.uog.edu or give her a call at 735-2620.1

Community

Guam Board of Examiners for Pharmacy will hold a regular session meeting on Thursday, July 16, 7:30 a.m., at the Health Professional Licensing Board Room. Call 735-7406-11.

University of Guam Board of Regents will hold a regular meeting on Thursday, July 15, at 5:30 p.m., in AV Room #1 of the RK Library. Call 735-2244.

Guam Housing Corporation will hold a regular board of Director's meeting on Wednesday, July 15, at 2 p.m., in the GHC conference room. Call 641-4143 ext. 133.

Guam Board of Medical Examiners will hold a regular session meeting on Wednesday, July 15, at noon, at the Guam Memorial Hospital Authority Board Room. Call 735-7406-11.

Department of Chamorro Affairs Board of Trustees will hold a regular meeting on Thursday, July 16, 4 p.m. in the Department of Chamorro Affairs conference room. Call 475-4278/9.

Committee on Public Safety, Law Enforcement and Senior Citizens will hold a public hearing on Thursday, July 9, 9 a.m. in the Public Hearing Room of I Liheslaturan. Call 472-5047/5048.

Civil Service Commission Board will hold a meeting on Thursday, July 9, 5:30 p.m. in the Civil Service Commission Conference Room. Call 647-1855/7.

Guam Memorial Hospital Authority Board of Trustees will hold a meeting on Thursday, July 9, 6 p.m. at the GMHA Board Room. Call 647-2218/2418.

Civilian Military Task Force Social & Culture Sub-Committee will hold a meeting on Tuesday, July 14, 2 p.m. at the Department of Chamorro Affairs Conference Room. Call 475-4278/9.

Guam Memorial Hospital Employee Association is sponsoring, "6000 steps towards a Healthier Heart," a 5K walk/run event to be held early morning on Saturday, July 18, 5 a.m., in the Guam Memorial employee parking lot. Go time is 6 a.m. Registrations can be taken at the GMHA Security booth in the front lobby or at Hornet Sporting Goods store. Call 647-2430.

Guam Education Policy Board will hold a regular meeting on Wednesday, July 29, 6 p.m. at Upi Elementary School, Yigo. Call 300-1627/9.

Guam Parole Board will hold a regular scheduled hearing on Thursday, July 30, 8:30 a.m. at the Parole Services Division office. Call 473-7001.

Guam Pardon Review Board will hold a regular scheduled hearing on Thursday, July 30, 3 p.m. at the Parole Services Division office. Call 473-7001.

GAIN

PETS OF THE WEEK

Opal will make your days glitter and glisten with her colorful ideas on how to spend spare time. Her showcases of entertainment are sure to motivate an exhausted body into participation. She has a black coat with distinct golden-brown accents dotted over each eye and painted on her muzzle like a big grin. Even though she is a petite girl at 8 months old she manages to hold her own ground when she shares the park with bigger dogs.

Lance will only charm those who wish to be under his spell. It will seem as though he is demanding to be petted when he mews at you but he is really asking politely in cat lingo. Once you get past his uniquely handsome coat and into his mind you will find his feline personality irresistible. The buff and chocolate colors against the linen white fur of his coat are heightened by eyes like azure crystals.

Come to the GAIN Animal Shelter in Yigo or call 653-4246. See other adoptable pets at www.Petfinder.com. UNDERWATER WORLD will donate one adult admission ticket for every Pet of the Week adopted.

COMMITTEE ON ECONOMIC DEVELOPMENT, HEALTH AND HUMAN SERVICES, AND JUDICIARY

***I Mina'Trenta Na Liheslaturan Guåhan* • 30th Guam Legislature**

238 Archbishop F.C. Flores St., DNA Bldg., Suite 701A, Hagatña, Guam 96910
Tel: (671) 969-1495/6 • Fax: (671) 969-1497 • Email: aguon4guam@gmail.com

July 10, 2009

MEMORANDUM

TO: **Honorable Senators/Committee Members**
Committee on Economic Development, Health & Human Services, and Judiciary

FROM: **SENATOR ADOLPHO B. PALACIOS, SR.**
Acting Chairman

SUBJECT: **Second Notice – Notice of Public Hearing**
Wednesday, July 15, 2009 – 8:00 am

Buenas yan Hafa Adai!

Please be advised that the Committee on Economic Development, Health & Human Services, and Judiciary will be conducting a public hearing on **Wednesday, July 15, 2009,** beginning at **8:00 am** in the Guam Legislature Public Hearing Room.

Please find attached agenda for this public hearing. Should you have any questions, please call Frances Lizama at Senator Aguon's office.

Un dangkulo' na Si Yu'us Ma'ase'.

Attachment (1)

Cc: Sergeant-at-Arms/Protocol/AV
Stephanie Mendiola, COR
Clerk of the Legislature
MIS

2ND NOTICE - NOTICE OF PUBLIC HEARING

from **Frances Lizama** <lizama.frances@gmail.com> hide details 4:41 PM (18 hours ago) Reply

to "SEN. ADA, Thomas C." <Tom@senatorada.org>,
"SEN. BLAS, Frank F., Jr." <frank.blasjr@gmail.com>,
"SEN. CALVO, Eddie J.B." <sencalvo@gmail.com>,
"SEN. CRUZ, Benjamin J.F." <senadotbjcruz@aol.com>,
"SEN. ESPALDON, James V." <senator@espaldon.com>,
"SEN. ESPALDON, James V." <senjim@ite.net>,
"SEN. GUTHERTZ, Judith P." <judiguthertz@pticom.com>,
"SEN. MUNA BARNES, Tina Rose" <tinamunabarnes@gmail.com>,
"SEN. PALACIOS, Adolpho B., Sr." <ABPalacios@gmail.com>,
"SEN. PANGELINAN, ben" <senbenp@guam.net>,
"SEN. RECTOR, Matt" <matt@mattrector.com>,
"SEN. RESPICIO, Rory J." <roryforguam@gmail.com>,
"SEN. TAITAGUE, Telo" <senatortelo@gmail.com>,
"SEN. TENORIO, Ray" <ray@raytenorio.com>,
"SPEAKER WON PAT, Judi" <speaker@judiwonpat.com>

cc "BLAS, Roland - Spkr Won Pat's Ofc." <roland@judiwonpat.com>,
"BORJA, Dominic - Sen. Ada's Ofc." <dominic@senatorada.org>,
"BURGOS, Fred - Sen. Rector's Ofc." <fred@mattrector.com>,
"CASTRO, James P. - Sen. Blas Ofc." <jamespcastro@gmail.com>,
"CIPOLLONE, Lisa - Sen. Pangelinan's ofc." <cipo@guam.net>,
"CEPEDA, Patrick - Sen. Palacios' Ofc." <patrickcepeda@hotmail.com>,
"DUARTE, Mark - Spkr Won Pat's Ofc." <mark@judiwonpat.com>,
"DUENAS, Mona - Sen. Espaldon's Ofc." <mona.duenas@gmail.com>,
dot@guamlegislature.org,
"DEFENSOR, Sahara - Spkr Won Pat's Ofc." <sahara@judiwonpat.com>,
"DIAZ, Jonathan - Sen. Palacios' Ofc." <jonbdiaz@gmail.com>,
elg@guamlegislature.org,
"EVARISTO, Jessica - Sen. Tenorio's Ofc." <jessica@raytenorio.com>,
"FEJERAN, Mary - Sen. Blas' Ofc." <maryfejeran@gmail.com>,
"HILLS, Derick - Sen. Pangelinan's Ofc." <derickhills@live.com>,
"KOMIYAMA, Velma - Sen. Barnes' Ofc." <vel.komiyama@yahoo.com>,
"LIDIA, Mike - Sen. Cruz ofc." <mike.lidia9@gmail.com>,
"LG, Phillip - Sen. Tenorio's Ofc." <phill@raytenorio.com>,
"MENDIOLA, Stephanie - Sen. Respicio's Ofc." <sem@guamlegislature.org>,
"MANIBUSAN, Lauriel - Sen. Espaldon's Ofc." <laurielisla@gmail.com>,
"QUITUGUA, Tony" <tq@guamlegislature.org>,
"QUINATA, Carl - Sen. Taitague's Ofc." <ciquinata@gmail.com>,
"ROBERTO, Phil - Sen. Espaldon's Ofc." <roberto.phil@gmail.com>,
"TABONARES, Gina" <aguonmedia@gmail.com>,
"TAJALLE, Elaine - Sen. Respicio's Ofc." <elainevtll@gmail.com>,
"TORRES, Frank B. - Spkr Won Pat's Ofc." <fbtorres@judiwonpat.com>,
"UNPINGCO, Joy - Sen. Calvo's Ofc." <joyunpingco@gmail.com>,
"WYTTENBACH-SANTOS, Richard - Sen. Guthertz Ofc." <doc.wyttenbachsantos@gmail.com>,
"WHEELER, Mary Lou" <mlwheeler2000@yahoo.com>,
"LG, Joe - Sgt-at-Arms" <sgtarms@guamlegislature.org>,
"SANTOS, Pat - Clerk's Ofc." <psantos@guamlegislature.org>,
"TERLAJE, Flo - Clerk's Ofc." <fterlaje@guamlegislature.org>,
"DE CASTRO, Chris - MIS" <cdecastro@guamlegislature.org>,
"PAK, Yong - MIS" <yong@guamlegislature.org>

date Thu, Jul 9, 2009 at 4:41 PM

subject 2ND NOTICE - NOTICE OF PUBLIC HEARING

mailed-by gmail.com

TO ALL:

Please find attached memo from Sen. Palacios, Acting Chairman, reference to scheduled public hearing. If you have any questions, please call our office. Thank you.

–

FRANCES S. LIZAMA
Office of Senator Frank B. Aguon, Jr.
30th Guam Legislature
Committee on Economic Development,
Health & Human Services, and Judiciary
238 Archbishop F.C. Flores St.
DNA Bldg (old PDN), Suite 701A
Hagatna, Guam 96910
Tel: 671.969.1495/6
Fax: 671.969.1497

2009.07.15 - PH - 2nd Notice.pdf
804K View Download

COMMITTEE ON ECONOMIC DEVELOPMENT, HEALTH AND HUMAN SERVICES, AND JUDICIARY

***I Mina'Trenta na Liheslaturan Guåhan* • 30th Guam Legislature**

238 Archbishop F.C. Flores St., DNA Bldg., Suite 701A, Hagatña, Guam 96910
Tel: (671) 969-1495/6 • Fax: (671) 969-1497 • Email: aguon4guam@gmail.com

July 10, 2009

MEMORANDUM

TO: **MEDIA**

Pacific Daily News – 477-3079	KUAM – 637-9870
Pacific News Center – 477-0793	K-57/Power 98 – 477-3962
Hit Radio 100 – 472-7663	K-Stereo/KISH – 477-6411
Marianas Variety – 648-2007	I-94 – 637-9865
Glimpses – 649-8883	Adventist Radio – 565-2983
Joy 92 FM – 477-4678	KPRG - 734-2958
Guam Broadcast Services – 648-0104	

FROM: **SENATOR ADOLPHO B. PALACIOS, SR.**
Acting Chairman

SUBJECT: **Second Notice** – Notice of Public Hearing
Wednesday, July 15, 2009 – 8:00 am

Buenas yan Hafa Adai!

Please be advised that the Committee on Economic Development, Health & Human Services, and Judiciary will be conducting a public hearing on **Wednesday, July 15, 2009**, beginning at 8:00 am in the Guam Legislature Public Hearing Room.

Please see attached agenda for this public hearing. If you have any questions, please call Frances Lizama at Senator Aguon's office.

Un Dangkulo' Na Si Yu'us Ma'ase'.

Attachment (1)

HP Officejet 6310
Personal Printer/Fax/Copier/Scanner

Log for
Sen. Frank B. Aguon, Jr.
(671) 969-1497
Jul 10 2009 11:26AM

NOTE: Blocked calls are not displayed on this report.
For more information, see Junk Fax Report and the Caller ID History report.

Last 30 Transactions

Date	Time	Type	Station ID Caller ID	Duration	Pages	Result
Jul 8	10:15AM	Fax Sent	4750597	0:28	1	OK
Jul 8	11:53AM	Fax Sent	4776788	0:34	1	OK
Jul 8	6:01PM	Received	6716473540	0:22	1	OK
Jul 9	9:35AM	Received	4778598 6714778596	0:46	1	OK
Jul 9	10:27AM	Received	6714723547	0:21	1	OK
Jul 9	3:16PM	Received	6714723547	0:21	1	OK
Jul 9	5:13PM	Received	477 2522 6714772522	1:40	9	OK
Jul 9	5:15PM	Received	477 2522 6714772522	1:45	10	OK
Jul 10	9:22AM	Received	6490145 6716490145	0:34	1	OK
Jul 10	10:36AM	Fax Sent	4771812	0:32	1	OK
Jul 10	10:48AM	Fax Sent	4773079	0:47	1	OK
Jul 10	10:49AM	Fax Sent	4770793	0:34	1	OK
Jul 10	10:50AM	Fax Sent	4727663	0:28	1	OK
Jul 10	10:51AM	Fax Sent	6379870	0:24	1	Cancel
Jul 10	10:53AM	Fax Sent	4773079 - PACIFIC DAILY NEWS	1:21	2	OK
Jul 10	10:58AM	Fax Sent	6379870 - KUAM	0:53	2	OK
Jul 10	11:00AM	Fax Sent	4773982 - K57/POWER 98	0:56	2	OK
Jul 10	11:02AM	Fax Sent	6482007 - MARIANAS VARIETY	1:03	2	OK
Jul 10	11:03AM	Fax Sent	6379870	0:00	0	Cancel
Jul 10	11:03AM	Fax Sent	6378819	0:11	0	Cancel
Jul 10	11:04AM	Fax Sent	4776411 - K-STEREO/KISH	1:39	2	OK
Jul 10	11:07AM	Fax Sent	4727663 - HIT RADIO 100	0:56	2	OK
Jul 10	11:08AM	Fax Sent	6498883 - GLIMPSES	0:57	2	OK
Jul 10	11:10AM	Fax Sent	5652983 - ADVENTIST RADIO	2:27	2	OK
Jul 10	11:13AM	Fax Sent	4774678 - JOY 92 FM	0:54	2	OK
Jul 10	11:15AM	Fax Sent	7342958	1:37	1	Error 346
Jul 10	11:18AM	Fax Sent	6379865 - I94	0:55	2	OK
Jul 10	11:19AM	Fax Sent	7342958 - KPRG	3:05	2	OK
Jul 10	11:23AM	Fax Sent	4770793 - PACIFIC NEWS CENTER	1:04	2	OK
Jul 10	11:24AM	Fax Sent	6480104 - GUAM BROADCAST SERV	1:03	2	OK

2ND NOTICE - NOTICE OF PUBLIC HEARING Inbox x

from **Frances Lizama** <lizama.frances@gmail.com> hide details 4:43 PM (17 hours ago) Reply
to "GLIMPSES - PALACIOS, Ivan" <reporter1@glimpsesofguam.com>,
"K57 / POWER 98 - GIBSON, Ray" <rgibson@k57.com>,
"KSTO/KISH - PEREZ, Alicia" <kstonews@ite.net>,
"KUAM - MATANANE, Sabrina" <sabrina@kuam.com>,
"MARIANAS VARIETY - WOLFORD, Shawn" <advertise@mvguam.com>,
"MELYAN, Catriona - PDN" <cmelyan@guampdn.com>,
"PDN - DALENO, Gaynor" <gdumat-ol@guampdn.com>,
"PNC - DELGADO, Nick" <news@spbguam.com>,
"PNC - SEBASTIAN, Stephen" <ssebastian@spbguam.com>
date Thu, Jul 9, 2009 at 4:43 PM
subject 2ND NOTICE - NOTICE OF PUBLIC HEARING
mailed-by gmail.com

TO ALL:

Please find attached memo from Sen. Palacios, Acting Chairman, reference to scheduled public hearing. If you have any questions, please contact our office. Thank you.

--
FRANCES S. LIZAMA
Office of Senator Frank B. Aguon, Jr.
30th Guam Legislature
Committee on Economic Development,
Health & Human Services, and Judiciary
238 Archbishop F.C. Flores St.
DNA Bldg (old PDN), Suite 701A
Hagatna, Guam 96910
Tel: 671.969.1495/6
Fax: 671.969.1497

2009.07.15 - PH - 2nd Notice.pdf
828K View Download

SAIPAN – The court ruling on the government's debt to the Retirement Fund will result in the imposition of austerity measures in fiscal year 2010, which starts on Oct. 1.

"The shortfall will be $8 million and this will mean significant budget cuts – 392 jobs will be lost," Sen. Maria T. Pangelinan said.

"This makes austerity measures imperative. So where do we cut and who do we cut? Maybe we should ask the Retirement Fund," she added.

Without austerity measures (work-hour reductions and pay cuts) over 1,000 government employees will lose their jobs, said Pangelinan, D-Saipan and chairwoman of the Senate Fiscal Affairs Committee.

She noted that the Retirement Fund now wants to negotiate with the administration and the Legislature.

"They should have sat down with us from the very beginning without going through litigation which cost this government a lot of money. So now what is the court saying? That we should all sit down, but that's what we've been saying all this time. So now we're back to square one," Pangelinan said.

The Retirement Fund, the senators during the hearings.

"They didn't want the Legislature to be involved but now they want us to sit down with them," she added. "I'll say it again. The Fund sued the administration and not the Legislature. Now the administration must come to the Legislature to discuss the [illegible] file an appeal we need to adjust the distribution of expenditures because there will be a shortfall and that will mean cuts."

According to Pangelinan, no one said that the government did not owe money to the Retirement Fund.

Rally for Supreme Court nitiate

COMMITTEE ON ECONOMIC DEVELOPMENT, HEALTH & HUMAN SERVICES, AND JUDICIARY

***I Mina'Trenta Na Liheslaturan Guåhan* • 30th Guam Legislature**

238 Archbishop F.C. Flores St., DNA Bldg., Suite 701A, Hagatña, Guam 96910

Tel: (671) 969-1495/6 • Fax: (671) 969-1497 • Email: aguon4guam@gmail.com

AGENDA

WEDNESDAY, JULY 15, 2009

GUAM LEGISLATURE PUBLIC HEARING ROOM

8:00 AM:

- **BILL NO. 101 (COR)**
  An act to *amend* §90105 of Chapter 90, Title 10, Guam Code Annotated; relative to smoking within twenty (20) feet of an entrance of a public place where smoking is prohibited.

- **BILL NO. 107 (COR)**
  An act to repeal Section 4301(g) and to repeal and re-enact Section 4302(g) Chapter 4, Article 3, Title 4 Guam Code Annotated relative to removing the continuing clause provisions to health insurance companies on Guam who contract with the Government of Guam and to require all companies or other legal entities providing health insurance to the Government of Guam to make available electronically de-identified detailed demographic, medical, dental, vision and pharmacy claims utilization and cost information subject to meeting HIPAA Regulations.

- **BILL NO. 116 (COR)**
  An act relative to authorizing the Guam Census Program temporary recruitment and employment of personnel, consistent with U.S. Census Bureau Guidelines, to conduct necessary activities related to the Guam Decennial 2010 Census.

- **BILL NO. 118 (COR)**
  An act to add a new Subsection (k) (11) to Section 22435 of Chapter 22, Title 5 Guam Code Annotated relative to the reprogramming of bond proceeds to fund the Guam Public School System Fiscal Year 2009 Child Nutrition Program and to reprogram the remaining balance to the Mayors Council of Guam.

1:30 PM:

- **BILL NO. 119 (COR)**
  An act relative to the establishment of the "GUAMS Hospital Foundation Act of 2009", to provide for the formation of a non-profit public corporation for the express purpose of soliciting public and private donations and grants in support of capital improvement projects and equipment needs of the Guam Memorial Hospital Authority through the creation of the "Guam Universal Assistance for Medical Services (GUAMS) Hospital Foundation"; through adding a new subsection §80119 to Chapter 80, Division 4, of Title 10, Guam Code Annotated.

- **BILL NO. 133 (COR)**
  An act relative to authorizing the Governor of Guam to contract the services of a professional qualified individual related to the services provided by the Department of Mental Health and Substance Abuse to serve as the Director for the Department.

- **BILL NO. 135 (COR)**
  An act to add a new Chapter 55 to Division 2 of Title 10, Guam Code Annotated, relative to authorizing the Department of Public Health and Social Services (DPHSS) to contract an independent environmental health inspection company(s) to conduct sanitary inspections on behalf of DPHSS and to fund inspection services from fees authorized to be collected under §7119 of Chapter 7, Title 22 of Guam Code Annotated.

5:00 PM:

- **BILL NO. 138 (COR)**
  An act to amend Chapter 3 of Title 19 of the Guam Code Annotated; relative to the legalization of same sex civil unions within the territory of the island of Guam.

COMMITTEE ON ECONOMIC DEVELOPMENT, HEALTH & HUMAN SERVICES, AND JUDICIARY

***I Mina'Trenta Na Liheslaturan Guåhan* • 30th Guam Legislature**

238 Archbishop F.C. Flores St., DNA Bldg., Suite 701A, Hagatña, Guam 96910

Tel: (671) 969-1495/6 • Fax: (671) 969-1497 • Email: aguon4guam@gmail.com

AGENDA

WEDNESDAY, JULY 15, 2009

GUAM LEGISLATURE PUBLIC HEARING ROOM

8:00 AM:

- **BILL NO. 101 (COR)**
  An act to *amend* §90105 of Chapter 90, Title 10, Guam Code Annotated; relative to smoking within twenty (20) feet of an entrance of a public place where smoking is prohibited.

- **BILL NO. 107 (COR)**
  An act to repeal Section 4301(g) and to repeal and re-enact Section 4302(g) Chapter 4, Article 3, Title 4 Guam Code Annotated relative to removing the continuing clause provisions to health insurance companies on Guam who contract with the Government of Guam and to require all companies or other legal entities providing health insurance to the Government of Guam to make available electronically de-identified detailed demographic, medical, dental, vision and pharmacy claims utilization and cost information subject to meeting HIPAA Regulations.

- **BILL NO. 116 (COR)**
  An act relative to authorizing the Guam Census Program temporary recruitment and employment of personnel, consistent with U.S. Census Bureau Guidelines, to conduct necessary activities related to the Guam Decennial 2010 Census.

- **BILL NO. 118 (COR)**
  An act to add a new Subsection (k) (11) to Section 22435 of Chapter 22, Title 5 Guam Code Annotated relative to the reprogramming of bond proceeds to fund the Guam Public School System Fiscal Year 2009 Child Nutrition Program and to reprogram the remaining balance to the Mayors Council of Guam.

1:30 PM:

- **BILL NO. 119 (COR)**
  An act relative to the establishment of the "GUAMS Hospital Foundation Act of 2009", to provide for the formation of a non-profit public corporation for the express purpose of soliciting public and private donations and grants in support of capital improvement projects and equipment needs of the Guam Memorial Hospital Authority through the creation of the "Guam Universal Assistance for Medical Services (GUAMS) Hospital Foundation"; through adding a new subsection §80119 to Chapter 80, Division 4, of Title 10, Guam Code Annotated.

- **BILL NO. 133 (COR)**
  An act relative to authorizing the Governor of Guam to contract the services of a professional qualified individual related to the services provided by the Department of Mental Health and Substance Abuse to serve as the Director for the Department.

- **BILL NO. 135 (COR)**
  An act to add a new Chapter 55 to Division 2 of Title 10, Guam Code Annotated, relative to authorizing the Department of Public Health and Social Services (DPHSS) to contract an independent environmental health inspection company(s) to conduct sanitary inspections on behalf of DPHSS and to fund inspection services from fees authorized to be collected under §7119 of Chapter 7, Title 22 of Guam Code Annotated.

~~**5:00 PM:**~~

- ~~**BILL NO. 138 (COR)**~~
  ~~An act to amend Chapter 3 of Title 19 of the Guam Code Annotated; relative to the legalization of same sex civil unions within the territory of the island of Guam.~~

Amended – 07.14.2009

2009 APR 24 PM 3:32

I MINA' TRENTA NA LIHESLATURAN GUÅHAN
2009 (FIRST) Regular Session

Bill No. 101 (COR)

Introduced by:

B.J.F. Cruz
Judith P. Guthertz, DPA
R.J. Respicio

AN ACT TO *AMEND* §90105 OF CHAPTER 90, TITLE 10, GUAM CODE ANNOTATED; RELATIVE TO SMOKING WITHIN TWENTY (20) FEET OF AN ENTRANCE OF A PUBLIC PLACE WHERE SMOKING IS PROHIBITED.

BE IT ENACTED BY THE PEOPLE OF GUAM:

Section 1. §90105 of Chapter 90, Title 10, Guam Code Annotated is *amended* to read:

"§ 90105. Prohibition of Smoking in Public Places.

(a) Smoking shall be prohibited in all enclosed public places and within twenty (20) feet of the entrance or exit of enclosed public areas, including, *but not limited to*, the following places:

(1) Elevators.

(2) Buses, taxicabs, airplanes, and other means of public transit and ticket, boarding, and waiting areas of public transport depots, including bus stops, bus shelters, *or* any facility provided for students waiting for bus transportation to and from school.

All monies collected from citations issued pursuant to this subsection *shall* be deposited in the Police Services Fund.

(3) Restrooms.

(4) Service lines.

(5) All areas available to and customarily used by the general public in all businesses patronized by the public.

(6) Restaurants.

(7) Public areas of aquariums, galleries, libraries and museums when open to the public.

(8) Any building not open to the sky which is primarily used for exhibiting motion pictures, stage shows, musical recitals or other performances, except when smoking is part of a stage production.

(9) Sports arenas and convention halls.

(10) Every place of meeting or public assembly during such time as a public meeting is in progress.

(11) Waiting rooms, hallways, wards and semi-private rooms for health facilities, including, *but not limited to*, hospitals, clinics, physical therapy facilities, doctors' offices and dentists' offices.

(12) Polling places.

(b) Any owner, operator, manager or other person who controls any establishment, facility or area described within this Chapter where smoking is not or in-part regulated, may prohibit smoking to occur within the entire establishment, facility or area and § 90109, § 90110, and § 90111 of this Chapter shall apply."