



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

ADVISORY COUNCIL PUBLIC HEALTH COMMITTEE

AGENDA

COMMITTEE MEMBERS

JEFFREY BRAMLETT, CHAIRPERSON
CASSANDRA ADAMS
JANICE KIM, M.D.

STEVEN T. KMUCHA, M.D.
KAREN LICAVOLI-FARNKOPF, MPH
LINDA WEINER
BRIAN ZAMORA

WEDNESDAY
DECEMBER 12, 2007
1:30 P.M.

7TH FLOOR BOARD ROOM

1. **Call to Order – Roll Call**
2. **Public Comment Period**

Public Comment on Non-Agenda Items, Pursuant to Government Code Section 54954.3. The public has the opportunity to speak on any agenda item. All agendas for Committee meetings are posted at the District, 939 Ellis Street, San Francisco, at least 72 hours before a meeting. At the beginning of the meeting, an opportunity is also provided for the public to speak on any subject within the Committee's purview. Speakers are limited to five minutes each.

3. **Approval of Minutes of October 10, 2007**
4. **Review of the Incoming Officers and Committee Chair**
The Committee will review the Incoming Officers and Committee Chair.
5. **Status of 2008 Workplan Organization Received from December 4, 2007 Executive Meeting**
The Committee will review the 2008 Workplan.

6. **Review and Discussion of Final Draft Strategy for Asthma as it Relates to Indoor Air Quality**

The Committee will review and discuss the final Draft Strategy for Asthma as it relates to Indoor Air Quality.

7. Committee Member Comments/Other Business

Committee members, or staff, on their own initiative, or in response to questions posed by the public, may ask a question for clarification, make a brief announcement or report on his or her own activities, provide a reference to staff regarding factual information, request staff to report back at a subsequent meeting on any matter or take action to direct staff to place a matter of business on a future agenda.

8. Time and Place of Next Meeting: At the call of the Chair.

9. Adjournment

cd

CONTACT CLERK OF THE BOARDS - 939 ELLIS STREET SF, CA 94109

(415) 749-4965
FAX: (415) 928-8560
BAAQMD homepage:
www.baaqmd.gov

- To submit written comments on an agenda item in advance of the meeting.
- To request, in advance of the meeting, to be placed on the list to testify on an agenda item.
- To request special accommodations for those persons with disabilities notification to the Clerk's Office should be given in a timely manner, so that arrangements can be made accordingly.

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
939 ELLIS STREET, SAN FRANCISCO, CALIFORNIA 94109
(415) 771-6000

EXECUTIVE OFFICE:
MONTHLY CALENDAR OF DISTRICT MEETINGS

DECEMBER 2007

<u>TYPE OF MEETING</u>	<u>DAY</u>	<u>DATE</u>	<u>TIME</u>	<u>ROOM</u>
Board of Directors Stationary Source Committee <i>(Meets 3rd Monday Quarterly)</i>	Monday	3	9:30 a.m.	Board Room
Advisory Council Executive Committee	Tuesday	4	9:30 a.m.	Room 716
Board of Directors Nominating Committee <i>– (At the Call of the Chair)</i>	Wednesday	5	9:30 a.m.	Room 716
Board of Directors Regular Meeting <i>(Meets 1st & 3rd Wednesday of each Month)</i>	Wednesday	5	9:45 a.m.	Board Room
Board of Directors Ad Hoc Committee on Port Emissions <i>(At the Call of the Chair)</i>	Thursday	6	9:30 a.m.	4 th Floor Conf. Room
Advisory Council Technical Committee <i>(Meets 2nd Monday of each even Month)</i> – CANCELLED	Monday	10	9:00 a.m.	Board Room
Board of Directors Mobile Source Committee <i>– (Meets 4th Thursday of each Month)</i>	Monday	10	9:30 a.m.	4 th Floor Conf. Room
Board of Directors Budget & Finance Committee	Wednesday	12	9:30 a.m.	4 th Floor Conf. Room
Advisory Council Air Quality Planning Committee <i>(Meets 2nd Wednesday of each even Month)</i> – CANCELLED	Wednesday	12	9:30 a.m.	Board Room
Advisory Council Public Health Committee <i>(Meets 2nd Wednesday of each even Month)</i>	Wednesday	12	1:30 p.m.	Board Room
Board of Directors Climate Protection Committee <i>(Meets 3rd Thursday every other Month)</i>	Thursday	13	9:30 a.m.	4 th Floor Conf. Room
Board of Directors Stationary Source Committee – Rescheduled to 12/3/07	Monday	17	9:30 a.m.	Board Room
Board of Directors Executive Committee <i>– (At the Call of the Chair)</i>	Monday	17	9:30 a.m.	4 th Floor Conf. Room
Board of Directors Regular Meeting <i>(Meets 1st & 3rd Wednesday of each Month)</i>	Wednesday	19	9:45 a.m.	Board Room
Board of Directors Legislative Committee <i>(Meets 4th Monday of every Month)</i> – CANCELLED	Monday	24	9:30 a.m.	4 th Floor Conf. Room
Board of Directors Budget & Finance Committee – Rescheduled to 12/12/07	Wednesday	26	9:30 a.m.	4 th Floor Conf. Room

JANUARY 2008

<u>TYPE OF MEETING</u>	<u>DAY</u>	<u>DATE</u>	<u>TIME</u>	<u>ROOM</u>
Board of Directors Regular Meeting <i>(Meets 1st & 3rd Wednesday of each Month)</i>	Wednesday	2	9:45 a.m.	Board Room
Board of Directors Public Outreach Committee <i>(Meets 1st Thursday every other Month)</i>	Thursday	3	9:30 a.m.	4 th Floor Conf. Room
Advisory Council Executive Committee	Wednesday	9	9:00 a.m.	Room 716
Advisory Council Regular Meeting/Retreat	Wednesday	9	10:00 a.m.	Board Room
Board of Directors Regular Meeting <i>(Meets 1st & 3rd Wednesday of each Month)</i>	Wednesday	16	9:45 a.m.	Board Room
Board of Directors Climate Protection Committee <i>(Meets 3rd Thursday every other Month)</i>	Thursday	17	9:30 a.m.	4 th Floor Conf. Room
Joint Policy Committee	Friday	18	10:00 a.m. – 12:00 p.m.	MTC 101 - 8 th Street Oakland, CA 94607
Board of Directors Budget & Finance Committee <i>(Meets 4th Wednesday of each month)</i>	Wednesday	23	9:30 a.m.	4 th Floor Conf. Room
Board of Directors Mobile Source Committee – <i>(Meets 4th Thursday of each Month)</i>	Thursday	24	9:30 a.m.	4 th Floor Conf. Room
Board of Directors Legislative Committee <i>(Meets 4th Monday of every Month)</i>	Monday	28	9:30 a.m.	4 th Floor Conf. Room

FEBRUARY 2008

<u>TYPE OF MEETING</u>	<u>DAY</u>	<u>DATE</u>	<u>TIME</u>	<u>ROOM</u>
Board of Directors Regular Meeting/Retreat - <i>(Meets 1st & 3rd Wednesday of each Month)</i>	Wednesday	6	9:45 a.m.	Board Room
Advisory Council Technical Committee - <i>(Meets 2nd Monday of each even Month)</i>	Monday	11	9:00 a.m.	Room 716
Advisory Council Air Quality Planning Committee <i>(Meets 2nd Wednesday of each even Month)</i>	Wednesday	13	9:30 a.m.	Board Room
Advisory Council Public Health Committee <i>(Meets 2nd Wednesday of each even Month)</i>	Wednesday	13	1:30 p.m.	Board Room
Joint Policy Committee	Friday	15	10:00 a.m. – 12:00 p.m.	BCDC 50 California St., 26 Fl. San Francisco, CA
Board of Directors Regular Meeting <i>(Meets 1st & 3rd Wednesday of each Month)</i>	Wednesday	20	9:45 a.m.	Board Room

FEBRUARY 2008

<u>TYPE OF MEETING</u>	<u>DAY</u>	<u>DATE</u>	<u>TIME</u>	<u>ROOM</u>
Board of Directors Legislative Committee <i>(Meets 4th Monday of every Month)</i>	Monday	25	9:30 a.m.	4 th Floor Conf. Room
Board of Directors Budget & Finance Committee - <i>(Meets 4th Wednesday of each month)</i>	Wednesday	27	9:30 a.m.	4 th Floor Conf. Room
Board of Directors Mobile Source Committee - <i>(Meets 4th Thursday of each Month)</i>	Thursday	28	9:30 a.m.	4 th Floor Conf. Room

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11/28/07 (10:35 a.m.)
P/Library/Forms/Calendar/Calendar/Moncal

Bay Area Air Quality Management District
939 Ellis Street
San Francisco, CA 94109

DRAFT MINUTES

Advisory Council Public Health Committee
1:30 p.m., Wednesday, October 10, 2007

1. **Call to Order – Roll Call.** Chairperson Bramlett called the meeting to order at 1:38 p.m. **Present:** Chairperson Jeffery Bramlett, Janice Kim, Ph.D., Steven Kmucha, MD., Ms. Linda Weiner, Mr. Brian Zamora, and Ms. Licavoli-Farnkkoph, MPH. **Absent:** Ms. Cassandra Adams.
2. **Public Comment Period:** There was none.
3. **Approval of Minutes of June 13, 2007:** The minute was approved and carried unanimously.
4. **Continued Discussion on Indoor Air Quality (IAQ) and Asthma:** Chairperson Bramlett initiated the discussion on Indoor Air Quality and Asthma stating that this is a first draft and an opportunity to make changes. Mr. Bramlett reminded those present that the recommendation read out at the full Advisory Council meeting and June 13, 2007 Committee meeting is shown in the draft. Mr. Bramlett stated that there might be a final draft by December, however it would be better to take whatever time needed to complete a product the committee is happy with than hurry through to meet the December deadline.

Mr. Zamora suggested that Members send their edits electronically to Mr. Bramlett. Mr. Bramlett also affirmed that any changes received would still come back to the committee for review.

Ms. Weiner stated that there is recent information from the American Lung Association on levels of criteria air pollutants; she will send information to Mr. Bramlett.

Mr. Bramlett clarified to the Committee that the purpose of the draft document is to precipitate clarity where need be. Mr. Bramlett reiterated that his understanding from the ongoing discussion is that the subject be changed to ‘Strategy for Asthma as it Relates to Indoor Air Quality,’ Mr. Zamora added that for the implication, the Committee will extract the relationship between outdoor and indoor air quality and the resulting concerns. The Committee unanimously agreed on the revision of the subject matter.

Ms. Weiner will search for list of Asthma Coalition within the Air District's jurisdiction to be added to the draft as well. Mr. Zamora will also identify with the County Public Health Organization best contacts to be available as the resource draft are compiled.

Mr. Bramlett notified the Committee that Dr. Tony Iton was scheduled to speak at the meeting today but had cancelled. Mr. Bramlett also notified the Committee that Dr. Moro from San Mateo County advised that Asthma Coalition will be the best to contact with the County Health Officers. Mr. Bramlett informed the Committee that there was a request to facilitate communication between the Air District and the County Health Officers. Mr. Jack Broadbent, Air Pollution Control Officer (APCO) spoke at the County Health Officers' annual retreat on Friday, October 5, 2007. Mr. Bramlett also threw the question open as to how contact the Asthma Coalition concerning the information the Committee needs or whether the direction so far is satisfactory. Committee members did not feel that further coordination was needed with the Coalition in order to complete this project.

Ms Weiner suggested that it would be worthwhile to list the information on the website and Mr. Bramlett agreed that it will be left for staff to list the information on the website. Mr. Bramlett reiterated that input from members is due to him by October 24, 2007 and he will put them together and send a revised draft back to members.

5. Presentation on Health Effects of Traffic Exposure: Dr. Janice Kim of the Office of Environmental Health Hazard Assessment (OEHHA) presented on various health studies related to living near busy roads. Dr. Kim stated that there have not been adequate regulations in place to address the protection of the public against air pollutants especially those living near these source types. Dr Kim gave an overview of the presentation as:

- Traffic related pollution and some of the mechanisms to toxicity.
- East Bay Children's Respiratory Health Study – an example
- Other Studies on Health Effects of Living Near Busy Roads
- On-road exposures
- Information for policy makers

For background information, Dr. Kim stated that there are health impact related to the respiratory system, cardiovascular, cancer, birth outcomes; however most of these studies are based on large populations where their exposures are estimated by regional air monitors. Traffic-related emissions are major sources of urban air pollution, which contains many air pollutants. These pollutants are respiratory irritants, carcinogens and can enhance our immune response. Dr. Kim explained that the particulates in traffic exhaust are extremely small, about 0.1 microns in diameter on the order of viral particles (smaller than cells). There are a lot of studies that show that these pollutants can enhance allergic response, which can have multiple effects especially on the cilia and respiratory epithelia. There has been increased probability of epithelia lining and a cascade of a process where one gets enhancement of immune

response through multiple mechanisms; this is summarized by the article Brook et al., *Circulation*. 2004; 109(21):265571. Also NO₂, ozone, diesel exhaust particulate (DEP) have been shown to enhance immune response on sensitize individuals; DEP can also induce an IgE response to new antigen.

Dr. Kim also stated that ultrafine particles are very small and impact the lower respiratory tract and cause local pulmonary inflammation due to inflammatory products that are released locally, it gets into the blood circulation and can lead to stress responses in the nervous system causing an increase in heart rate, and blood pressure thereby affecting the cardiovascular system.

Dr. Kim also noted that traffic related pollution contains so many pollutants and have higher concentrations near downwind of busy roads as illustrated by Zhu et al. *Jawma*, 2002. These pollutants include particles, carbon monoxide, black carbon, NO₂; these pollutants are usually rapid drop of 100m to 300m downwind. It is noteworthy that most of our regional monitors are not situated near major sources thus not capturing hot spots.

Dr. Kim acknowledged the team of scientist and schools that joined in the study and stated that the methodology involved monitoring of over several seasons to get estimate of annual exposure, adjustment of individual level of risk factors like family history of asthma, demographics – race/ethnicity, home environmental factors like smoking in the home, and whether students from schools or neighborhood had higher level of traffic pollutants are in association with increased risk of asthma and bronchitis. After the experiment, it was found that those students who live in the neighborhood of higher traffic pollutants had a higher risk of asthma and bronchitis symptoms within the last twelve months, in addition, after measurement; it was found that the level of traffic pollutants were 1.5 to 2 times higher at locations near downward of the freeway compared to locations that were further away from the freeway or the Fremont monitoring station.

Dr. Kim also highlighted the recent work that OEHHA is doing and other epidemiological studies stating that they are looking at home exposures by using Geographic Information System (GIS) techniques to estimate the proximity of residential areas to traffic exposures as it relates to risks of asthma symptoms.

Dr. Kim summarized that after taking into account all the variables, there are increased risk of about 20% of the population exposed to traffic that have higher risk of asthma symptoms of one to five times.

Mr. Zamora inquired if the make-up of the community was taken into account. Dr. Kim responded that demographics of race/ethnicity, as well as socio-economic status were taken into consideration but they did not really make a difference.

Dr. Kim also discussed On-road exposure to traffic pollution citing Dr. Scott Fruin of UCLA's presentation. Dr. Fruin reviewed some of the existing studies that documented high exposures to vehicle exhaust on busy roads showing that particulate matter effects are about 5 to 15 times higher. Dr. Kim stated that an average

Californian spend 90 minutes per day in a vehicle and Air Resource Board estimated that 6% of daily driving can give up to half of our exposures.

Dr. Kim also cited Peters et al. study in Germany of about 700 subjects that had their first acute Myocardial Infarction (MI); the study stated that exposure to traffic within 1 to 2 hours prior to symptoms more than doubled the risk of MI. The study also considered whether taking public transportation and being in traffic lowers stress level.

Also, Dr. Kim commented on the study of exposure to ultrafine particles and DNA damage in Copenhagen; she stated that 15 healthy individuals were monitored for six days cycling in traffic and one 90 minutes indoor cycling. In the process, blood samples were taken to monitor ultrafine particle exposures, the result showed lower ultrafine particles on day of indoor cycling and higher ultrafine exposures correlated with higher evidence oxidative DNA base damage in blood cells.

Dr. Kim stated that in general, low income children and children of color are much more likely to live in high traffic density areas. Studying California schools and how close they are to busy roads, the result showed that schools located near busy roads have a disproportionate number of children economically disadvantaged and nonwhite, thus it is clearly an environmental justice issue. Dr. Kim also stated that there has been legislation passed to limit school locating near busy roads; she also cited Los Angeles school district it as struggles with finding school sites. ARB noted schools sites are based on local land use decisions and put together a guidance that recommends sensitive populations such as nursing homes, schools, residential areas to be cited not less than 150m away from busy roads.

Dr. Kim noted that there are still some unresolved issues with this body of literature, the first being that we are still grappling with issues that living near busy roads and higher exposure put one at a very high risk yet; it is still very difficult to quantify. It is not certain what constitutes busy roads but some major arterial roads have significant traffic (e.g. 50,000 vehicles a day on major busy boulevard in Sacramento) and have high pollutants from stop and go traffic that are contributing to health effects in terms of source control (e.g. particulates, nitrogen, dioxide, acrolein, etc.). Finally, do urban re-development, Smart Growth projects consider health impacts of building near busy roads?

Ms. Weiner asked what the Air District is doing in terms of land use policies and hot spots. Mr. Henry Hilken, Director of the Planning Division of the Air District responded that the Air District has been promoting smart growth for many years to reduce reliance on automobile and sometimes the policies would resolve the issue of residential areas being near sources of high levels of air contaminants. Mr. Hilken noted that the Air District is concerned with questions of how much traffic is high traffic, which air pollutants should cause worries, how much of a buffer zone should be considered and are there other mitigation strategies beyond a buffer zone that might be helpful. Mr. Hilken also confirmed that these issues are being addressed by the CARE program, which will eventually provide needed data to cities and counties.

- 6. Committee Member Comments/Other Business:** Chairperson Bramlett announced that seven Regulation Rule 6; 3: Wood Burning Devices workshops are being held from November 7 to 26, 2007, interested members should contact him for the notice.
- 7. Time and place of next meeting:** 1:30 p.m., Wednesday, December 12, 2007, 939 Ellis Street, San Francisco, CA 94109.
- 8. Adjournment:** The meeting adjourned at 2:50 p.m.

Chioma Dimude
Acting Executive Secretary

Bay Area Air Quality Management District
939 Ellis Street
San Francisco, California

December 12, 2007

To: Advisory Council Members
From: Public Health Committee
Subject: Strategy for Asthma as it Relates to Indoor Air Quality

Topic

Recommendations to the Bay Area Air Quality Management District (Air District) regarding its role and how it can interface with the public, Local Health Departments, County Health Officers and non-governmental organizations on asthma as it relates to indoor air quality.¹

Importance/Implications

Over the past decade, the prevalence of asthma in both children and adults has increased dramatically in the United States. This increase is due to both outdoor and indoor air pollution.

Asthma is a chronic inflammatory disease of the airways that affects more than 17 million Americans². With 2,761,404 children and adults in California having asthma.³ In the Bay Area alone, almost 525,000 people suffer from this condition.⁴

Outdoor air pollution affects a wide swath of the country. Currently, more than 136 million Americans live in 251 counties where they are exposed to unhealthy levels of outdoor air pollution from ozone (smog) or particle matter (soot).⁵ Both of these criteria pollutants can exacerbate asthma. Additionally, it has been indicated that outdoor air pollution cannot only aggravate asthma, but actually cause asthma.⁶ Studies show that on smoggy days, hospital and emergency visits due to asthma show a definite increase.

¹ Public Health Committee Meeting Minutes of February 14, 2007

² Tips to Remember: Asthma triggers and management, American Academy of Allergy Asthma and Immunology, 2006.

³ American Lung Association's State of the Air Report, 2007, www.californialung.org accessed on October 26, 2007.

⁴ Ibid

⁵ Ibid

⁶ Children's Health Study, University of Southern California, September 2004

Environmental exposures to allergens and bioaerosols, including pollen, animal dander, cockroaches, and mold can cause exacerbations of asthma. Many of these allergens are found in high concentrations indoors. Additionally, many air pollutants found both in outdoor and indoor environments are respiratory irritants that can lead to worsening of asthma symptoms.

The common respiratory irritants found in outdoor environments include the criteria pollutants (e.g., ozone, particulate matter) and many ambient air toxics. Poor indoor air quality can also lead to exacerbations of asthma. Classes of respiratory irritants commonly found indoors include (1) Combustion by-products (2) Volatile organic compounds and (3) Noxious gases e.g. from some clean products (such as bleach).

Indoor air quality also has a major impact. Environmental allergens such as vapors, dust, mold, cat or dog dander, cockroaches, chemicals in carpets or furniture, household cleaners, and smoke can aggravate attacks, as can extreme weather changes, medications, foods, stress, viral or sinus infections. Staff report that they receive calls from people who are concerned about odors and air pollution as sources causing asthma attacks. Currently, staff responds to inquiries by recommending the caller seek medical evaluation and contact their county health organization. The frequency of these calls has reached a level that staff has requested guidance on their role in this area and how to enhance current response efforts.

Key Issues

Outdoor agents related to asthma: Outdoor allergens such as pollens and molds can trigger asthma in some people include smog (ozone) and soot (particulate matter), pollens, molds, nitrogen dioxide, sulfur dioxide, and air toxics such as acrolein and formaldehyde. For some of these agents, pollens and molds, the Air District is not perceived to have a significant role historically or in the near future. However, ozone, particulate matter and sulfur dioxide are asthma triggers for which the Air District has been historically involved and plays a significant role.

Indoor agents related to asthma: Environmental allergens such as dust mite, animal dander, mold, and cockroach antigen can be found in high concentrations indoors. Additionally, there are many sources of respiratory irritants indoors that can contribute to poor indoor air quality. These respiratory irritants can affect healthy individuals, and asthmatics are an especially sensitive population. Respiratory irritants commonly found indoor settings include (1) By-products of combustion (e.g. fine particulates, nitrogen dioxide and other gases)(2) Volatile organic compounds (VOCs) including formaldehyde and (3) Harsh volatile inorganic chemicals that can a noxious odor and cause respiratory irritation (e.g. bleach) .

Common indoor sources of combustion products found indoors include tobacco smoke, fireplaces, wood-burning stoves, and unvented gas or kerosene space heaters, gas stoves and other poorly vented gas appliances Common sources of formaldehyde indoors include furnishings and building materials made of particle board, plywood,

medium density fiberboard (MDF). Common indoor sources of other VOCs, include solvents, paints, adhesives, new carpet, cleaning products, fragrances, and air fresheners.

The significance with respect to the Air District's role is that the majority of the triggers and controls are typically dominated by their personal environment (home, auto, work surroundings). Irritants are the one area that bears directly on the Air District's role.

Inflamed asthmatic airways are hyper-sensitive to environmental irritants. Irritants that can trigger and aggravate asthma include:

- Air pollutants such as tobacco smoke, wood smoke, chemicals in the air and ozone.
 - Household cleaners have been shown through ordinary use could lead to exposure levels could exceed guideline values under exceptional yet plausible conditions, such as cleaning a large surface area in a small room⁷.
- Occupational exposure to vapors, dust, gases or fumes
- Strong odors or sprays such as perfumes, household cleaners, hairspray, cooking fumes (particularly from frying), paints or varnishes
- Other airborne particles such as coal dust, chalk dust or talcum powder

Relative Contributions: (indoor sources versus outdoor sources, allergens versus other sources).

Confirming asthma is a concern: People, with increasing frequency, have been contacting the district because they believe they have asthma. People are aware that the incidence of asthma has increased over the last few years and that certain geographic region and locations are more prone to asthma. Committee members believe that some callers may not have been diagnosed with asthma and may not be working with a health care provider. (Data to support this or even to make a stronger statement?)

The Nature of the District's Role: The Air District's role is not perceived as a new one or complex, rather one of facilitating the provision of existing information to aid concerned callers.

Recommendations

1. Develop a program on Indoor Air Quality and Asthma focusing on facilitating the provision of consistent information from existing programs, including the Air District's and other agencies, to callers through the District's various communication resources (staff responding to calls, printed pamphlets, electronic and other media as appropriate).
2. Elements of this program might include:

⁷ California Air Resources Board, Indoor Air Chemistry, Cleaning Agents, Ozone and Toxic Air Contaminants, W. W. Nazaroff, UC Berkeley, April 2006

- a. A discussion of outdoor agents related to asthma and the Air District's role. Although this should limit discussion to existing programs, it may require development of language relating what the Air District is already doing like CARE and those that have been or are under development on ozone, particulate matter and sulfur dioxide that benefit the fight for better indoor air quality and the reduction in asthma prevalence and episodes for sufferers.
 - i. Examples include: impacts and controls for dirty diesel, wood smoke, spare the air, spare the air tonight, industrial and restaurant cooking fumes, paints and vanishes and how they relate to asthma.
 - ii. Utilize this as an opportunity to facilitate dissemination of information on existing programs and how callers can support them (i.e., ozone, particulate matter, and wood smoke controls).
- b. A discussion of indoor agents related to asthma and the Air District's role. After ruling out the unlikely scenario that the concern may be caused by an outdoor agent, the role should be to focus callers on resources available from other agencies and health professionals.
 - i. Development of a list of external resources for staff to use as an aid in referring callers.
 - ii. Consider development or directing callers to a set of guides or best practices callers can use. The focus would be emphasizing the general principal: Indoor sources of pollution and inadequate ventilation leads to poor indoor air quality. Some items to consider include:
 - 1. Combustion Products –tobacco smoke, fireplaces, woodstoves, furnaces, gas stoves, and other gas appliances such as water heaters, gas clothes dryers, fireplaces, and woodstoves
 - a. Convert gas appliances to electric where reasonable
 - b. Where gas appliances remain ensure they are
 - i. Properly vented
 - ii. Periodically and professionally inspected and maintained
 - 2. Volatile Organic Compounds
 - a. Increase ventilation and avoiding storage of opened containers of unused paints and similar materials
 - b. If formaldehyde is thought to be the cause,
 - i. identify and remove the source
 - ii. measuring the levels is not necessary
 - iii. if removal is not possible, increase ventilation and or seal with non-toxic polyurethane
 - iv. Formaldehyde concentrations decrease rapidly over the first year after a product is manufactured
- c. A brief discussion about air cleaners. Questions regarding the effectiveness of portable air cleaning devices often come up among those concerned about indoor air quality. The CARB and US EPA have developed excellent materials for the public and the Air District should develop a clear and consistent message based on information provided by these other agencies. In particular, the District should note that ozone generators are especially unhealthful and the public should avoid using them. The Air District at a

- minimum can provide the public with the appropriate websites and toll-free numbers to call if the caller desires additional information.
- d. Increase support and advocacy that callers work with a health professionals and organizations that provide asthma outreach and education to obtain an accurate diagnosis, identify triggers, remove or control triggers.
 - e. Increase support and advocacy that callers work with a health care provider.
 - i. Increase support and advocacy that callers work with a health care provider to obtain an accurate diagnosis, identify triggers, remove or control triggers.
 - ii. Increase the coordination with Local Health Departments and County Health Officers and organizations to result in:
 1. A more collaborative effort in which air quality facts (i.e., sample results) may aid health officer/agency work to reduce asthma triggers and cases.
 2. So that Air District staff can aid callers in more efficiently addressing their concerns by referring callers more accurately to the correct resource at the callers local (county) level.
 3. Work with the School Districts, through those that have public health nurses, to disseminate the Air District's information.
 4. Provide callers with a list of references that are sensitive to people of different language preferences and who may not have internet access (physical or ability).
 5. Include in appropriate media releases, in addition to the other information, an educational message that when the air quality is poor, a person can have an exacerbation of respiratory and cardiac problems. Also that there are many triggers that exacerbate asthma and, that on any day when a person has an exacerbation, it is due to days or even weeks of accumulating effects that result in the episode.
 - f. Development of printed materials (e.g., a pamphlet) for the Air District's own use reflecting the aspects noted in the recommendations above. These materials should also support other federal and state agencies and NGO work in this area. One way this might be done is by preparing information similar to that of the California Air Resources Board (Attachment 1).
 - i. Consider highlighting examples of asthma friendly programs that are already in place (i.e., Tools for Schools).
3. Train Air District staff on the background, science, relative to the relationship between indoor and outdoor air quality and asthma and the procedures established to implement the recommendations above.
 4. Develop program measures to track volume of calls, type of referral made, number of inspections made, classification of inspection conclusion as to if trigger is thought to be primarily due to an indoor our outdoor source.

Information Considered

Members considered reports to the Committee from:

Jack Colbourn, Director, Outreach and Incentives Division, BAAQMD

Jami Aggers, Compliance Manager, Compliance Division, San Joaquin Valley Unified Air Pollution Control District
Janet Glasgow, Air Quality Program Manager, Compliance and Enforcement Division, BAAQMD
Jenny Bard, Communications Director, American Lung Association of California
Jim Nolan, Director of Compliance, Puget Sound Clean Air Agency
John Crouch, Director of Affairs, Hearth, Patio and Barbecue Association (HPBA)
Judy Goldblatt, Public Information Officer, Outreach and Incentives Division, BAAQMD
Kathy Hayes, Government Affairs Director, North Bay Association of Realtors
Peggy Jenkins, CARB Indoor Exposure Assessment Section Research Division
Peter Hess, BAAQMD
(UPDATE FOR PAST PRESENTATIONS?? I.E., P. JENKINS, J. WALDMAN, V. TORREANO, E. BLAKE, J. BROADBENT, B. SPARK, M. PASTOR, DR. SAWYER, D. FAIRLEY, D. VINTZE, R. JACKSON, D. JORDAN, B. OSTRO)

Deliberative Process

The Public Health Committee was asked to consider this topic by the Council as part of its work starting in 2006. The Committee met on February 14, April 11, May 10, July 18 and September 6, 2006, to receive and discuss presentations on the issues. The Committee unanimously arrived at its recommendation for forwarding to and consideration by the full Advisory Council. A chronology of the Committee's deliberations, and the presentations received on this matter, is available upon request.

Attachment 1: California Air Resources Board Example Materials

DRAFT

Attachment 2: List of Local Asthma Resources

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BAY AREA ASTHMA COALITIONS

more information at www.rampasthma.org

***Alameda County:**

Oakland Berkeley Asthma Coalition, Oakland

Contact: Lynn Dailey

ldailey@ci.berkeley.ca.us

Elizabeth Edwards

eedward@alamedaalliance.org

Oakland Berkeley CAFA Project

(CAFA: California Action to Fight Asthma)

Contact: Mindy Landmark, Coordinator

Ethnic Health Institute

510. 869-8226, landmam@sutterhealth.org

Oakland Kicks Asthma, Emeryville

Contact: Adam Davis, Program Director

American Lung Association of California

510. 893-5474, x304, adavis@alaebay.org

West Oakland Asthma Coalition, Oakland

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Ethnic Health Institute, Oakland

Asthma Sub-Committee

Contact: Mindy Landmark, Coordinator

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***Contra Costa County:**

Contra Costa County Asthma Coalition

Cedrita Claiborne, MPH, Coalition Coordinator

Contra Costa Health Services

Contact: Carol Shenon, Operations Coordinator

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***San Francisco County**

San Francisco Asthma Task Force
Contact: Anjali Nath, MPH, Advocacy Coordinator
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***San Mateo County**

San Mateo Asthma Task Force
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***Solano County**

Solano Asthma Coalition, Fairfield
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***Sonoma County**

Sonoma County Asthma Coalition, Santa Rosa
Contact: Shan Magnuson, Director; Barbara Young, Asst. Program Director
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***Santa Clara County**

East Palo Alto Asthma Task Force
Contact: Janine Bishop, Chair
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