

**Asthma Surveillance Data Needs Assessment  
Summary Report**



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## INTRODUCTION

In 2002, the Environmental Health Investigations Branch of the California Department of Health Services entered a cooperative agreement with the Centers for Disease Control and Prevention entitled, “Addressing Asthma from a Public Health Perspective,” to advance the implementation of the *Strategic Plan for Asthma in California*. The California project is named, “California Breathing.” It encompasses four major areas of asthma: 1) Partnership development; 2) Surveillance; 3) Schools; and 4) Disparities. As part of this grant, the California Breathing Asthma Surveillance Team is developing an enhanced asthma surveillance system to better document the burden of asthma in California. In order to facilitate this process, the California Breathing Asthma Surveillance Team conducted a data needs assessment to identify, describe, and prioritize the following:

- Concerns and issues related to asthma surveillance data;
- Needs related to accessing and analyzing data;
- Technical assistance / training needs related to interpreting and reporting asthma surveillance data; and
- Utility of an interactive, web-based information system.

## METHODS

The Asthma Surveillance Data Needs Assessment Survey (see Appendix I, Instrument) was administered to 35 individuals who requested asthma data from us in the past year. This group included people from local health departments, State offices, community coalitions, and other researchers in California (see Appendix II). A total of 22 respondents completed the survey between September and November 2003.

The first half of the survey explored what data organizations were currently using and how they prioritized types of asthma surveillance data. The assigned ranks were the following: high, medium, low, or does not apply / don’t know. The second half of the survey assessed the organizations’ preferences in accessing or using data by demographic subgroups, age, time, geography and format of asthma surveillance data. A simple ranking system was used to answer these questions (1-3, 1=highest priority, using all 3 numbers). The survey also assessed the type of asthma data requests that organizations received and their ability to meet the requests.

## RESULTS

### Utilization of Asthma Surveillance Data

According to respondents, the top five indicators of asthma surveillance data currently reported to have the highest usage by respondents were:

- Hospitalizations;
- Deaths;
- Prevalence among the general population;
- Prevalence among population subgroups (i.e., Hispanics); and
- Prevalence among school-age children and adolescents.

The indicators of asthma surveillance data currently reported to have the lowest usage by respondents were:

- Occupational or work-related asthma prevalence;
- Pharmacy utilization; and
- Activity limitations/restrictions.

Note: Data for unscheduled and/or scheduled office visits, pharmacy utilization, direct and/or indirect costs, quality of life indicators, and asthma knowledge were not available to over one-third of respondents.

### **Prioritization for Providing Asthma Data**

Over 80% of respondents listed the following as high priorities for providing asthma surveillance data (listed in descending order of priority):

- Prevalence among population subgroups (i.e., Hispanics);
- Prevalence among school-age children and adolescents;
- Prevalence among the general population;
- Deaths;
- Outdoor air pollutants;
- Pharmacy utilization;
- Direct and/or indirect costs;
- Emergency room visits; and
- Hospitalizations.

Few respondents (under 80%) reported quality of life indicators (activity limitations/restrictions, and work/school days missed) and asthma knowledge as high priorities.

### **Preferences in Accessing and Using Asthma Data**

Over one-half of respondents preferred age-specific rates rather than counts and age-adjusted rates. Data users also preferred annual rates rather than 3-year average rates. A majority of the respondents indicated that they preferred to access and use asthma data at the local level (i.e., zip code and county) rather than at the regional and statewide levels. Most respondents preferred to view asthma data in formatted/customized tables, charts, etc. and few respondents preferred raw data and written reports/summaries of analyzed data.

The California Breathing Asthma Surveillance Team currently presents data in the following demographic subgroups: Non-Hispanic White, Black, Hispanic, Asian, and Other. Over one-half of respondents believed that data provided using these subgroups were adequate. Among respondents who believed these subgroups were inadequate, some suggestions included adding Native American as a subgroup and further subgrouping Hispanic, Asian, and Pacific Islander groups. The preferred formats to receive asthma data were fact sheets (approximately 4 per year), email, and website. Asthma data was primarily used for health education and program planning. The majority of respondents were able to meet asthma data requests and provide adequate asthma surveillance data. Almost all respondents reported using Internet Explorer as their primary web browser.

## CONCLUSIONS

Although this data needs assessment was conducted with a small sample of asthma interest organizations throughout California, it provided the California Breathing Asthma Surveillance Team with sufficient information to better document asthma surveillance data. Local health departments, State offices, community coalitions, and other researchers in California have benefited from the California Breathing Asthma Surveillance Team providing asthma prevalence, hospitalization, and mortality surveillance data used for health education, research, program planning, and program evaluation. However, there is a need to provide asthma data on asthma prevalence for various subgroups, environmental exposures, pharmacy utilization, and emergency room visits. In addition, the lack of interest demonstrated in occupational or work-related data was most likely due to the convenience sample of respondents. We did not specifically administer the survey to occupational health groups.

This assessment demonstrated a need for data to be analyzed by demographic subgroups (age-specific and by race/ethnicity), annually, and at local levels (by county and zip code). Interpretation and reporting of data was preferred in the form of fact sheets on a quarterly basis. There was no strong technical assistance needs identified because most organizations reported the ability to meet community requests by providing assistance in accessing, analyzing, and reporting data. In conclusion, since all respondents preferred annual dissemination of data at local levels using formatted/customized tables, charts, etc. and reported using Internet Explorer as their primary web browser, an interactive, web-based information system would be appropriate for users to further access asthma surveillance data in California.

## RECOMMENDATIONS

### Data Needs Identified

- Present analyzed data by subgroups, annually, and at local levels (county and zip code).
- Enhance asthma surveillance capacity by providing data on environmental exposures, pharmacy utilization, and emergency room visits.
- Focus additional efforts on documenting asthma surveillance data on children, specifically school-age, because they are of particular interest to our data users.

### Next Steps to Meet These Data Needs

- Develop a collection of *California County Profiles* (~ 2-page summary per county) to document asthma prevalence, hospitalizations, mortality, environmental, and demographic data using the most recent years of data. This would allow each county to compare their asthma surveillance data to the state and other counties. The *California County Profiles* would be available via hard copy and through the California Breathing website.

- Plan and develop an interactive, web-based information system that reports data by gender, race/ethnicity, age group, geography (zip code, county, etc.), and time (annual, trend, etc.) in a timely and uniform manner.
- Analyze and present emergency room visit asthma data upon its availability from the Office of Statewide Health Planning and Development.
- Compute asthma hospitalization rates at the zip code level to fulfill requests of specific asthma coalitions in California.
- Use the California Healthy Kids Survey to analyze and present asthma prevalence and symptom data among school-age children in *California Asthma Facts*, a quarterly fact sheet produced by the California Breathing Asthma Surveillance Team.

# APPENDIX I



## ASTHMA SURVEILLANCE DATA NEEDS ASSESSMENT SURVEY

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The California Breathing Asthma Surveillance Team of the Department of Health Services, Environmental Health Investigations Branch is developing an enhanced asthma surveillance system to better document the burden of asthma in California. As outlined in the *Strategic Plan for Asthma in California*, we would like to assess asthma technical assistance needs and provide data to local health departments, State offices, community coalitions, and researchers. In order to provide the most recent surveillance data in an efficient manner, we are also evaluating the feasibility of an interactive, web-based information system. We are asking you to participate in a survey regarding you and your organization's data needs and priorities. The survey will help us identify, describe, and prioritize the following:

- Concerns and issues related to asthma surveillance data
- Needs related to accessing, analyzing, interpreting and reporting data
- Technical assistance / training needs related to asthma surveillance

This survey has been distributed to you and to several representatives throughout California and should take about 15 minutes to complete. When you have completed the survey please return it to the California Breathing Asthma Surveillance Team either by mail, fax, or email by October 1, 2003. If you have any questions or would like to complete the survey via telephone, please call (510) 622-4475.

California Breathing – Asthma Surveillance Team  
Attention: Nazerah Shaikh, MPH  
1515 Clay St., Suite 1700  
Oakland, CA 94612  
**510-622-4505 (FAX)**  
[nshaikh@dhs.ca.gov](mailto:nshaikh@dhs.ca.gov)

Thank you very much for your time. Your participation will assist us in developing a useful surveillance model for California and will help guide the Centers for Disease Control and Prevention's effort to build a model framework for asthma surveillance at the national level.

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### 1. Please complete the following contact information:

<b>Name</b>	<input type="text"/>
<b>Title (position)</b>	<input type="text"/>
<b>Organization</b>	<input type="text"/>
<b>Branch</b>	<input type="text"/>
<b>Address</b>	<input type="text"/>
	<input type="text"/>
	<input type="text"/>
<b>Phone</b>	<input type="text"/>
<b>Fax</b>	<input type="text"/>
<b>Email</b>	<input type="text"/>
<b>Website</b>	<input type="text"/>

### 2. Please categorize your jurisdiction:

- State
- County
- City
- Multiple counties, districts, or regions, please specify:
- Other, please specify:

3. For each of the indicators below, please answer the following questions for your jurisdiction:

Asthma Surveillance Data	Do you currently use this type of data?				What should be the priority for providing this type of data?			
	Yes	No	Data Unavailable	Don't Know	High	Med	Low	Does Not Apply / Don't Know
<b>Prevalence of Asthma</b>								
General population	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Population subgroup (i.e., African-Americans)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
School-age children and adolescents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Child care centers / Children under 5 years	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Occupational or work-related	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Symptoms	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Health Care Use Related to Asthma</b>								
Hospitalizations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Emergency room visits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unscheduled and/or scheduled office visits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pharmacy utilization	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Direct and/or indirect costs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Mortality</b>								
Asthma deaths	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Quality of Life</b>								
Activity limitations / restrictions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Work days missed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
School days missed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Asthma Knowledge (KAB*) Among</b>								
Persons with asthma	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Parents and/or caregivers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Medical care providers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Environmental Exposures</b>								
Outdoor air pollutants	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Indoor hazards (ETS*, pests, pets, mold, etc)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Other – Please specify</b>								
<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

\*Abbreviations: KAB=Knowledge, attitudes, and behaviors; ETS=Environmental tobacco smoke

**4. Currently, we provide data in the following demographic subgroups: Non-Hispanic White, Black, Hispanic, Asian, and Other. Are these adequate?**

- Yes
- No. If no, please describe the subgroups you prefer?

**5. What format do you prefer to access or use data by age? Please rank the preferred formats (1-3, 1=highest priority, use all 3 numbers).**

- Counts
- Age-specific rates (i.e. for children under 5)
- Age-adjusted rates (rates adjusted to the US Census 2000 population)

**6. What format do you prefer to access or use data by time? Please rank the preferred formats (1-3, 1=highest priority, use all 3 numbers).**

- Annual rates
- 3-year average rates
- 10-year rate trend

**7. What format do you prefer to access or use data by geography? Please rank the preferred formats (1-4, 1=highest priority, use all 4 numbers).**

- Zip code
- County
- Region, please specify
- State

**8. How do you primarily use this data? Please mark all that apply.**

- Education
- Research
- Program Planning
- Program Evaluation
- Other, please specify:

**9. What format do you prefer to obtain or visualize the data? Please rank the preferred formats (1-4, 1=highest priority, use all 4 numbers).**

- Raw data (such as text files)
- Formatted/customized tables, charts, graphs, etc
- GIS Maps (geographical representation of distributions)
- Written reports/summaries of analyzed data

**10. What type of format would you like to receive asthma surveillance data? Please mark all that apply.**

- |   |                                    |  |
|---|------------------------------------|--|
| <input type="checkbox"/> Fact sheets (~4 per year)            | <input type="checkbox"/> Telephone | <input type="checkbox"/> Website   |
| <input type="checkbox"/> Surveillance reports (every 3 years) | <input type="checkbox"/> Fax       | <input type="checkbox"/> Training / conference   |
| <input type="checkbox"/> Email                                | <input type="checkbox"/> Mail      | <input type="checkbox"/> Other, please specify: <input style="width: 100px;" type="text"/> |

**11. What are the common requests that your organization gets from communities regarding asthma? Are you able to meet those requests?**

Community Requests (Please mark all applicable boxes)	Able to meet requests? (Please mark your response)			
	Yes	No	Don't Know	Not Applicable
<input type="checkbox"/> Data on asthma morbidity and mortality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Data on environmental asthma triggers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Assistance in accessing existing data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Assistance in analyzing and reporting data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Other – please specify: <input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Other – please specify: <input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**12. Which of the following browsers does your organization primarily use?**

- Internet Explorer
- Netscape Communicator
- Other browser – Please specify:

**13. Do you have any additional comments or concerns? You may use the following questions to help guide your comments:**

- What are your organization’s challenges, limitations or barriers in accessing, analyzing, interpreting and reporting data on asthma?
- What are your organization’s challenges, limitations, or barriers in utilizing data for public health action?
- How can the quality and/or utility of the data be improved?

Thank you for your time and effort; we very much appreciate your feedback. Please return the completed survey by October 1, 2003 via mail, fax, or email to:

California Breathing – Asthma Surveillance Team  
 Attention: Nazerah Shaikh, MPH  
 1515 Clay St., Suite 1700  
 Oakland, CA 94612  
**510-622-4505 (FAX)**  
[nshaikh@dhs.ca.gov](mailto:nshaikh@dhs.ca.gov)

If you have any questions, please contact Nazerah at (510) 622-4475.

Please visit our website at <http://www.californiabreathing.org>

## **APPENDIX II. PARTICIPATING ORGANIZATIONS**

- American Lung Association of California, East Bay
  - American Lung Association of California, Redwood Empire Branch
  - Alameda County Public Health Department
  - Applied Survey Research
  - Asthma Education & Management Program
  - California Asthma Public Health Initiative
  - Children's Hospital, San Diego
  - Children's Medical Services Branch
  - Community Health Center Network
  - Community Medical Centers, Fresno
  - Department of Health Services Research
  - Family Healthcare Network
  - Health & Environmental Research Center
  - Merced/Mariposa County Asthma Coalition
  - Regional Asthma Management & Prevention Initiative (2)
  - San Diego Regional Asthma Coalition
  - San Joaquin Valley Health Consortium
  - Santa Clara County Public Health Department
  - Solano Asthma Coalition
  - St. Lukes Hospital
  - Tulare County Asthma Coalition
-