

# Asthma Task Force Report to the San Francisco Board of Supervisors: Recommendations to Promote Asthma Prevention and Control

October 2011



SAN FRANCISCO  
**Asthma Task Force**



# About The Asthma Task Force



In 2001, the Asthma Task Force (ATF) was legislated as an initiative of the San Francisco Board of Supervisors (BOS) to address the epidemic of asthma through primary prevention and environmental strategies, with an emphasis on reducing asthma disparities disproportionately affecting lower income communities in San Francisco. The legislated task force came about due to the efforts of Bayview Hunters Point community activists and allies who identified asthma as a key issue for school children in Bayview Hunters Point and for all age groups citywide. Our mission is to prevent asthma and to improve the quality of life for people with asthma, especially the underserved, who live or work in the City and County of San Francisco, by the use of advocacy, legislative action and citywide strategies (<http://www.sfgov.org/asthma>).

Over 75 individuals representative of community advocates, health professionals such as physicians, nurse practitioners, nurses, respiratory therapists, pharmacists and health educators, representatives of the Department of Public Health (SFDPH), the Department of the Environment and other City agencies have served as members in the ten-year history of the Task Force. As of June 30, 2011, the legislated San Francisco ATF has sunset and immediately transitioned to a community coalition of the same name, operating in cooperation with a non-profit fiscal sponsor, the Asthma Resource Center of San Francisco, Inc. For this reason, we wish to provide Board members and the public a snapshot of our ten-year highlights as well as a summary of yet-to-be completed policy objectives. We hope that our productive relationship with the BOS will continue to evolve beyond this transition period.

The ATF has pursued its varied projects based on strategic planning priorities identified in 2003. We acknowledge that medical care is a critical component shaping the quality of life for people with asthma, yet we know that many other societal and environmental factors are equally important in creating risk factors for asthma. To this end, we have followed the "Health in All Policies" approach, also endorsing efforts to promote social cohesion, safe and convenient access to physical recreation, easy access to goods and services such as nutritious food, effective schools, affordable housing and child care, and preventive health care. As examples, we have generated funding for health care transportation access for Hunters Point residents and advocated for legislation that requires new residential developments near busy roadways to control human exposure to traffic-related air pollutants such as fine particulate matter. The Task Force has also advocated for improved housing habitability via San Francisco Housing Authority (SFHA)'s adoption of thermographic cameras to identify water infiltration as a source of mold and use of integrated pest management (IMP) practices to control cockroach infestation and new Health Code provisions to ensure proactive inspections of multi-unit housing for health nuisances and fines for those who don't comply with abating identified hazards. The Task Force has offered a variety of property owner and tenant workshops and print materials promoting healthier housing conditions for people with asthma and is now part of a statewide Healthy Housing Coalition. The Task Force also participated

in coalitions promoting cumulative impacts policy for the Air Quality District to reduce air pollution in impacted communities, policy to reduce second hand smoke exposure in housing, and policy to reduce toxic consumer product use in homes, schools and child care.

In our clinically focused work, the Task Force and SFDPH partners have assisted 35 people to become certified asthma educators and held nine continuing education SF Asthma Network events, sharing asthma medical expertise and resources among citywide health care provider entities and staff. Capacity building has focused on asthma diagnosis and treatment content knowledge, clinic systems change and information systems to better serve patients with chronic disease, effective patient communication strategies for clinicians, and ideas for clinic staff to develop cultural competencies serving diverse patient ethnicities and races. Most notably, the Task Force and its SFDPH partners have worked with a wide variety of health care stakeholders to improve the standard of care for asthma, including Kaiser Permanente SF, Anthem Blue Cross, SF Health Plan, Building a Healthier San Francisco and the Community Benefit Partnership, Sutter Health/California Pacific Medical Center (CPMC), St. Luke's Hospital and Bayview Child Health Center, UCSF Pediatrics and Pulmonary Medicine, San Francisco General Hospital (SFGH) Pediatrics, Chest Clinic and Family Health Center, Curry Senior Center Clinic, Tom Waddell Health Center, Southeast Health Center, Silver Avenue Health Center, Balboa Teen Health Center, Chinatown Public Health Center, Mission Neighborhood Health Center and Valencia St. Health Services, St. Anthony Free Medical Clinic, Native American Health Center, North East Medical Services, Arthur H. Coleman Medical Center, St. Mary's Sister Phillipa Health Clinic, and the University of Washington Quality Improvement initiatives, including its Spirometry Learning Lab Program.

In the next section, we present highlights of the 10-year collective work initiated by our Clinical, Schools and Child Development, and Environment Committees. Following that section, we present outstanding policy objectives yet to be realized and ask for your support in helping us complete our mission.

## ASTHMA TASK FORCE HIGHLIGHTS AND KEY RECOMMENDATIONS

In addition to highlights of ATF achievements from 2001-2011, this section presents outstanding policy objectives yet to be fully implemented.

### 1. CHILD CARE

#### Highlights

- ATF has achieved national recognition for its leadership in identifying bleach-free disinfectant and sanitizing practices that help child care workers and the children in their care avoid asthma risks from bleach exposure. ATF has disseminated their recommended practices to national and statewide audiences, including via the newsletter of the California Child Care Licensing Board. This project was achieved with support from the SFDPH, SF Department of the Environment, Regional Asthma Management and Prevention (RAMP), San Francisco Foundation, San Francisco Public Health Foundation, and a private donor;
- ATF produced and distributed a trilingual indoor air quality poster for child care sites to help staff reduce asthma triggers.

## Key Recommendations

First 5 San Francisco and the SF Human Services Agency should provide funding to the SFDPH Child Care Health Program to fund low-cost equipment subsidies and a one-year project staff person to assist 100 priority child care and preschool sites serving low income children to adopt best practices in bleach-free disinfection and sanitizing practices, as recommended by the SF ATF report, "Bleach Exposure in Child Care Settings: Strategies for Elimination or Reduction" (March 2011).

## 2. CLINICAL CARE

### Highlights

- With five years of Kaiser Permanente San Francisco Community Benefits funding, ATF helped several community safety net clinics build capacity for asthma management, education and quality improvement; asthma educator interns currently funded have expanded their patient education to include chronic obstructed pulmonary disease (COPD) and smoking cessation;
- 2011-12 funding from Kaiser has allowed ATF to place a Community HealthCorps intern with the Balboa Teen Health Center to help them develop protocols that support students with asthma and overweight issues to become more aware of healthy living activities and better able to participate in physical education classes and sports;
- With UCSF Pulmonary partners and support from the SF Public Health Foundation, ATF has promoted staff training and capacity to use clinic-based spirometry to diagnose and assess treatment of asthma patients; currently producing patient educational videos to instruct non-English speakers in how to complete spirometry;
- ATF has provided multiple translation, graphic reproduction and video production support for patient video orientation and educational print materials of the Pediatric Asthma Clinic at SFGH;
- ATF advocated for the Bay Area Legal Aid's Medical Legal Partnership clinic at SFGH Pediatric Asthma Clinic in pursuing housing code enforcement for asthma patients and later included that program in housing habitability advocacy for Bayview Hunters Point tenants;
- With five years of support from Kaiser Permanente San Francisco, ATF formed an Asthma Network for clinicians and asthma educators citywide, providing continuing education annually to improve the standard of clinical care and to build staff capacity for patient asthma education;
- With BOS funding, ATF assisted 35 medical staff to become nationally-certified as Asthma Educators, and prepared over 75 individuals to take this exam;
- With one year of support from CPMC Community Benefits, ATF analyzed findings from four focus groups of medical providers and 200+ surveys mailed to families of children who had been hospitalized for asthma; study format was later repeated with providers and families experiencing asthma hospitalization of their children at SFGH.

## Key Recommendations

- A. The Task Force should continue to focus efforts on reducing asthma disparities, including health care inequities that contribute to such disparities.
- B. SFDPH, Health Care Institutions and Health Plans should continue to sponsor continuing education opportunities for medical providers that improve provider communication and engagement with patients, as well as promoting the standard of care for asthma set by the National Asthma Education and prevention Expert Panel Report 3, 2007, via the Asthma Network's convening and in collaboration with any RAMP convening.
- C. When funded to do so, ATF should continue to train and utilize Community HealthCorps members for one-year placements as Asthma Educators in community safety net clinics.
- D. When funded to do so, ATF should work with San Francisco Unified School District (SFUSD) high schools to provide asthma standard of care guidance to school physical education teachers and sports coaches.
- E. SFDPH should adopt a training program for clinical staff to establish a trauma-informed system of care with age-appropriate screening tools and referrals to intervention services.
- F. SFDPH should adopt a policy of screening children and youth with asthma who are overweight or obese, to refer such patients to age-appropriate intervention programs.
- G. SFDPH should adopt a policy of assessing smoking for all youth and adult patients and creating barrier-free access to smoking cessation prescriptions and support services.

## 3. COMMUNITY & POLICY ADVOCACY

### Highlights

- In May 2011, ATF provided input to BOS member Malia Cohen on expenditure of the Mirant Power Plant Settlement funds to benefit asthma, indoor air quality and public health in the Potrero Hill and Bayview Hunters Point Neighborhoods;
- With support from the California Endowment Community Action to Fight Asthma (CAFA) Initiative in May 2008, ATF produced and disseminated its Report to the Community on Asthma, focusing on policies needed to reduce asthma disparities and environmental risk factors for asthma in schools, housing and outdoor air;
- ATF and SFDPH staff secured SF County Transportation Agency grant-funded shuttle and taxi service to improve health care access for Hunters Point residents, operated by Bayview Hunters Point Community Foundation; ATF members provided print media marketing for the shuttle service;
- Provided testimony in support of SF Health Code Article 38 protection of sensitive uses in air pollution hot spots;
- Provided testimony in support of San Francisco's legislation limiting second-hand smoke exposure;
- Advocated for elimination of asthmagens in Green Seal institutional cleaners standard and in similar

Canadian Ecologo standard;

- ATF helped the SF Department of the Environment expand their City purchasing criteria for Institutional Cleaners to include protection from astmagens by offering a learning session with California Department of Public Health and nationally based representatives promoting green purchasing standards; SF Department of the Environment also produced its consumer-oriented Safer Cleaning fact sheet;
- Advocated with Walgreens to inform consumers about safer alternatives to commercial cleaning products and pesticides;
- In June 2003, ATF produced and disseminated the Strategic Plan on Asthma for the City and County of San Francisco.

## Key Recommendations

- A. The ATF should continue to advocate for policies that affect retailers and inform consumers about safer alternatives to commercial cleaning products and pesticides.
- B. The City and County of San Francisco must generate a greater inventory of healthy affordable housing for low-income residents, supportive housing for families, and eliminate the occurrence of families living in single room occupancy hotels.
- C. By September 2013, SFDPH should institute a policy that all new multi-unit housing complexes (MUHCs) receiving SFDPH funds will have 100% smoke free policies and all existing MUHCs receiving SFDPH funds will adopt policies that designate a certain percentage of units as smoke free and/or separate the smoke free units from the non-smoke-free units and/or phase in smoke-free policies with new tenants.  
  
By September 2015, the City and County of San Francisco should adopt a policy that all new residential buildings (MUHCs) receiving funds from the City and County of San Francisco will have 100% smoke free policies and that all existing MUHCs receiving city funds will adopt smoke-free policies such as designating a certain percentage of units as smoke free, increasing the percentage of smoke-free units over time, and/or separation of smoke free units from the non-smoke-free units.
- D. By June 2014, the SFDPH (Environmental Health) should provide documentation to the Mayor's Office of Workforce and Economic Development, the Mayor's Office of Housing and the San Francisco Planning Department that allows the City and County of San Francisco to adopt funding policy that promotes the retrofit of existing housing in high traffic hot-spot air pollution zones to prevent infiltration and recirculation of traffic-related particulates.

## 4. HOUSING HABITABILITY

### Highlights

- Provided support to the Free 2 Breathe program established by St. Andrew's Church Health Ministry to obtain a US Environmental Protection Agency (USEPA) grant for outreach to tenants at Western Addition low-income and public housing sites to improve awareness and control of asthma environmental triggers;

- With support from SF Department of the Environment and the Northeast Center for IPM, ATF is promoting SFHA's current effort to build tenant awareness and staff capacity in IPM in order to reduce cockroach infestations and pesticide use at Sunnydale Family Development;
- With support from RAMP, ATF partners (Breathe CA, Bay Area Legal Aid and Housing Rights Committee of SF) organized Bayview Hunters Point tenants to advocate for legislation amending the Health Code that promoted stronger SF Health Code enforcement authority against asthma triggers such as pests and mold (October 2010);
- With support from US EPA Region IX and California Breathing, ATF partners (SF Department of the Environment, Bayview Hunters Point Health & Environmental Resource Center, and Greenaction for Health & Environmental Justice) provided a train the trainer session for 13 public housing residents; pre- and post-educational home visits; safer cleaning and pest control toolkits; and community workshops on eliminating asthma triggers in the home;
- With BOS funding, ATF helped SFHA gain equipment and skills using thermographic cameras to find water infiltration sources causing mold and to clean up their backlog of mold work orders; ATF also purchased an additional camera and training for Mayor's Office of Housing Rehab Housing Specialists, and training for Department of Building Inspection Housing Inspection Services staff;
- ATF produced and distributed trilingual mold prevention fact sheets for SFHA tenants;
- ATF provided review and input to 2008 National Center for Health Housing Fact Sheet on Carpets and Healthy Homes;
- ATF held the National Center for Healthy Housing's "Essentials for Healthy Homes Practitioners" course for 25 SF health workers to teach healthy housing principles and to build capacity for participants to advocate for the housing rights of their patients (Oct. 08);
- ATF held a "Healthy Housing and Building Sustainability" workshop provided for 25 SF property managers and housing specialists (Sept. 08);
- ATF provided multiple trainings for community safety net clinicians and medical staff as well as for the Asthma Network on healthy housing principles and housing habitability resources.

### Key Recommendations

- A. All City agency code enforcers and contracted community partners should be paid to attend the 2-day "Essentials of Healthy Housing" course offered via National Center for Healthy Housing trainers (e.g. Alameda County Lead Poisoning Prevention Program (CLPP)).
- B. The SFHA should fully adopt IPM policy and practices in SFHA properties, similar to the requirements for City and County of San Francisco departments and agencies.
- C. With support from US Centers for Disease Control (CDC), SF Department of the Environment will develop design guidelines to prevent pests in new construction, with the help of a national expert advisory committee; the guidelines will include specific building design features and sanitation practices that prevent pest infestation, intended to be used by developers, architects, engineers, facility managers and green building professionals.

- D. As an evidence-based strategy, IPM is a safer alternative to traditional pesticide spraying, fogging and bombing (ingredients are often asthma triggers and in many cases contain ingredients on the Association of Occupational and Environmental Clinics (AOEC) asthmagen list). Based on the Precautionary Principle, SFPDPH should support the adoption of IPM practices in all SFPDPH operated Housing and Urban Health properties, and provide ongoing workshops for private property owners, managers and tenants in best practices for pest control.
- E. Whenever tenants contribute to pest harborage and the need for pest control services because of mental health issues such as hoarding, the City and County of San Francisco should increase eligibility and staffing for SF Dept. of Aging authorization and use of In-Home Support Services (IHSS) for tenants living in residential hotels, SFHA developments, Section 8 housing, or in private multi-unit housing where tenants are receiving subsidy or rent control.

## 5. OUTDOOR AIR POLLUTION CUMULATIVE IMPACTS CAMPAIGN

### Highlights

- ATF worked with RAMP as part of the Bay Area Environmental Health Collaborative (BAEHC) to advocate for improved pollution reduction standards and public participation protocols to be implemented by the Bay Area Air Quality Management District (BAAQMD);
- ATF provided testimony at several BAAQMD meetings regarding revision of California Environmental Quality Act (CEQA) Air Quality Guidance, New Source Review Rule and criteria and oversight of future Community Risk Reduction Plans.

### Key Recommendations

SF City and County's three representatives on BAAQMD Board should advocate for policies that promote public participation and reduce cumulative impacts on communities disproportionately impacted by air pollution, and monitor implementation of such policies. BAEHC should be a key informant for the development of such policies.

## 6. PUBLIC AWARENESS

### Highlights

- ATF manages a website, [sfgov.org/asthma](http://sfgov.org/asthma), which provides information on our work as well as resources to patients, medical providers, and the interested public;
- ATF held seven World Asthma Day events with press coverage from 2003-2009;
- In 2008, ATF began a public awareness campaign regarding safer housecleaning products & furnishings, and safer mold & pest control practices:
  - SF Examiner ads on toxic use reduction (April-May 08);
  - ATF trilingual flyers on safe housecleaning and pest control;
  - Toxic use reduction press briefing with New America Media (November 08);

- In 2007, ATF produced and broadcasted five public service announcement videos about our advocacy efforts and results working with DPH clinics, SFUSD, and SFHA;
- In 2005, ATF produced and broadcasted an English-language public service announcement (PSA) video about preventing asthma deaths, featuring an ATF member who had lost her 4-year-old child to asthma; in 2008, ATF created two additional PSA's on this subject for Spanish and Cantonese speakers.

### Key Recommendation

Continue to maintain the [sfgov.org/asthma](http://sfgov.org/asthma) website as a resource to the public.

## 7. PUBLIC SCHOOLS AND EARLY EDUCATION DEPARTMENT (EED) PROGRAMS (formerly known as Child Development Centers or CDC)

### Highlights

- ATF initiated a Green Cleaning Resolution with Board of Education (BOE) member Jill Wynns to expand current efforts to reduce cleaning and disinfectant products with asthmagens in school and EED sites, adopted by the BOE on June 28, 2011;
- At the end of the 2010-11 school year, ATF surveyed SFUSD teachers and staff as to the adequacy of their asthma training and awareness of emergency protocols, with support from their union, Unified Educators of San Francisco. Forty people responded with anecdotal information. Responses indicated that despite progress made in the overall asthma management program, improvements are still needed in the areas of training and communication on District asthma policies, posting requirements, and emergency protocols. Sixty-five percent of those who responded stated that either they have never received any asthma training from SFUSD or that they did not remember the training. Only fifty percent of the teachers who responded had the SFUSD Guidelines for School First Aid Procedures posted in their classrooms. Replies also highlighted some inconsistencies in how staff were notified about having asthmatic students in their classrooms. In some cases, staff were notified by SFUSD nurses or secretaries, and in other cases by the parents and even by the students themselves. Finally, seventy-five percent of the staff felt that they would benefit from additional training and resources to support asthmatic students especially since nurses are not present on a daily basis in many schools;
- With support from the SFDPH, ATF successfully promoted SFUSD hiring a part-time industrial hygienist to implement the USEPA indoor air quality program, Tools for Schools, at SFUSD sites;
- ATF successfully promoted SFUSD policy prohibiting staff and parents from bringing cleaning, disinfecting or air freshener products to classrooms from home;
- With BOS funding, ATF helped SFUSD Custodial Services change to asthma-safe cleaning products and to microfiber mopping that reduces the liquid volume used;
- ATF produced and distributed patient and medical provider outreach materials to increase the number of students with Asthma Emergency Card and Asthma Medication Forms on record at their school sites;
- ATF successfully advocated for diesel filtration retrofitting of all school buses contracted by SFUSD.

## Key Recommendations

- A. In keeping with the Green Cleaning Board of Education resolution adopted June 2011, SFUSD should continue to support its indoor air quality, green cleaning and other sustainability initiatives that provide healthier environments for people with asthma. In particular, SFUSD should continue to fund its half-time Tool for Schools Coordinator, an industrial hygienist in SFDPH.
- B. SFUSD should specifically ensure that EED Programs, Food Service and Special Education adopt the bleach-free and asthmagen-free cleaning, sanitizing and disinfecting practices recommended by the SFATF report, *Bleach Exposure in Child Care Settings: Strategies for Elimination or Reduction* (March 2011).
- C. SFUSD should improve its technology systems to capture individual student data of asthma diagnosis on emergency cards, asthma treatment on emergency care plans and forms granting student and school approval to use asthma medications, and to make such data accessible to all teachers and staff responsible for affected students school-related time and activities.
- D. SFUSD should comply with the annual asthma training for teachers and staff mandated by its legal settlement following the asthma-related death of a child development center-enrolled student.

## OTHER KEY RECOMMENDATIONS

### Overall Policy Framework Needed:

- The City and County of San Francisco should adopt a “Health in All Policies” framework to create a mechanism for public health analysis of impacts that may occur due to the implementation of policies developed for such topics as community development, housing, traffic and transportation, jobs, schools, child care, violence prevention, open space and active recreation.
- As a component of the “Health in All Policies” framework, the City and County of San Francisco should include a “Health Equity” framework to create a mechanism for public health analysis of proposed or existing policies with disproportionate health impacts on certain communities that are minority race or ethnicity or primarily low income or recent immigrant populations. Such a framework should require agencies to propose policy strategies that increase health equity for these communities.

## NEXT STEPS BY THE ATF

- The ATF shall:
  - Successfully transition the SFATF to a community coalition structure; continue communication strategy with the DPH, the Health Commission and the BOS;
  - Continue to advocate for needs of people with asthma and to reduce asthma disparities.
- The ATF Clinical Committee shall continue to:
  - Organize once or twice yearly Asthma Network continuing education events;
  - Implement Community Benefits awards from Kaiser Permanente SF, if awarded;
  - Support Dr. George Su’s implementation of a quality assurance support for clinic-based spirometry in the community safety net;
  - Explore avenues to address stress and trauma risk factors for asthma, such as promoting use of trauma-informed clinical care that will benefit families with asthma.
- The ATF Environmental Committee shall continue to:
  - Implement the IPM project at Sunnydale Family Development in partnership with the SF Department of the Environment, SFHA and the Northeast Center for IPM (HUD trainer);
  - Seek IPM policy adopted and expanded to all SFHA properties;
  - Support SFDPH’s effort to identify and test effective methods to retrofit existing housing to protect occupants from traffic-related pollutants;
  - Support the Free2Breathe US EPA grant-funded home visiting project to better housing conditions for people with asthma in Western Addition low income housing developments;
  - Support the ATF project to reduce or eliminate use of bleach in all child care settings citywide, particularly those serving low-income families.
- The ATF Schools and Child Development Committee shall continue to:
  - Participate as a stakeholder in the SFUSD’s implementation of its newly adopted green cleaning policy, and participate as feasible in the oversight committee for that policy;

- Support funding for the SFUSD Tools for School program and SFDPH-based coordinator;
- Support efforts to better identify and report the number of students with asthma at all SFUSD school and EED sites, and to communicate emergency care plan information for each student to all affected staff;

## REFERENCES AND RESOURCES

### Websites:

- Bay Area Environmental Health Coalition, <http://www.baehc.org>
- Building a Healthier San Francisco, <http://healthmattersinsf.org>
- California Breathing (CDPH), <http://www.californiabreathing.org>
- Regional Asthma Management and Prevention, <http://rampasthma.org>
- San Francisco Asthma Task Force, <http://www.sfgov.org/asthma>
- US CDC Vital Signs - Asthma, <http://www.cdc.gov/vitalsigns/Asthma/index.html>

### Documents:

Link at <http://www.sfgov3.org/index.aspx?page=721>

- San Francisco Asthma Task Force Strategies for Reducing or Eliminating Bleach Exposure in Child Care (2011)

Link at <http://www.sfgov3.org/index.aspx?page=723>

- San Francisco Asthma Task Force Report to the Community (2008)
- San Francisco Asthma Task Force Strategic Plan (2003)

### AV Media:

Link at [http://sanfrancisco.granicus.com/ViewPublisher.php?view\\_id=69](http://sanfrancisco.granicus.com/ViewPublisher.php?view_id=69)

- Pediatric Asthma Clinic at SFGH (5 languages available to orient new patients)
- Uncontrolled Asthma (3 languages available to air as PSAs to prevent asthma deaths)
- SF Asthma Change (5 "Agents of Change" vignettes produced about ATF projects)
- Spirometry patient orientation from SFGH Chest Clinic (June 2011 in production)

### Contact Information:

San Francisco Asthma Task Force

c/o Department of Public Health Children's Environmental Health Promotion Program

1390 Market St. #410, San Francisco, CA 94102

[www.sfgov.org/asthma](http://www.sfgov.org/asthma); 415-252-3812

## SCOPE OF THE PROBLEM

The US CDC Vital Signs web posting and press release of May 2011, "Asthma in the US", released these latest findings:

Asthma is increasing every year in the US. Too many people have asthma.

- The number of people with asthma continues to grow. One in 12 people (about 25 million, or 8% of the population) had asthma in 2009, compared with 1 in 14 (about 20 million, or 7%) in 2001.
- More than half (53%) of people with asthma had an asthma attack in 2008. More children (57%) than adults (51%) had an attack. 185 children and 3,262 adults died from asthma in 2007.
- About 1 in 10 children (10%) had asthma and 1 in 12 adults (8%) had asthma in 2009. Women were more likely than men and boys more likely than girls to have asthma.
- About 1 in 9 (11%) non-Hispanic blacks of all ages and about 1 in 6 (17%) of non-Hispanic black children had asthma in 2009, the highest rate among racial/ethnic groups.
- The greatest rise in asthma rates was among black children (almost a 50% increase) from 2001 through 2009.

Asthma has a high cost for individuals and the nation.

- Asthma costs the US about \$3,300 per person with asthma each year from 2002 to 2007 in medical expenses, missed school and work days, and early deaths.
- Medical expenses associated with asthma increased from \$48.6 billion in 2002 to \$50.1 billion in 2007. About 2 in 5 (40%) uninsured people with asthma could not afford their prescription medicines and about 1 in 9 (11%) insured people with asthma could not afford their prescription medicines.
- More than half (59%) of children and one-third (33%) of adults who had an asthma attack missed school or work because of asthma in 2008. On average, in 2008 children missed 4 days of school and adults missed 5 days of work because of asthma.

Building a Healthier San Francisco "Health Matters in San Francisco" website reports that the current San Francisco hospitalization rate due to pediatric asthma is 11.9 per 10,000 population, 3.6 times the Healthy People 2020 Target Rate. We know that there is great disparity between San Francisco zip codes, with some have hospitalizations rates 3-6 times higher than others. As the prevalence of asthma continues to grow, without the international research community having determined a mechanism for causation, we must remain vigilant to reduce risk factors associated with new asthma as well as those that exacerbate existing asthma. While most people are familiar with smoking, indoor and outdoor air quality issues as asthma risk factors, less are aware that obesity, immune system dysregulation associated with experiencing childhood trauma, social cohesion and exposure to community or domestic violence are also asthma risk factors which disproportionately affect lower income communities. These and other health inequities can be correlated with higher rates of adverse asthma outcomes such as emergency room visits and hospitalizations per neighborhood.

## **Addendum: Asthma Hospitalizations and Emergency Department (ED) Visits for San Francisco**

- I. Hospitalizations by Zip Code and Age
- II. ED Visits by Zip Code and Age
- III. Hospitalizations by Race/ethnicity
- IV. ED Visits by Race/Ethnicity

Data Source: California Office of Statewide Health Planning and Development (OSHPD) Patient Discharge Databases  
Notes: Numerator for rates is hospitalizations with a principal diagnosis using ICD-9 code 493. Denominator for rates is the estimated number of residents based on: 1) for zip codes - the ESRI Community Sourcebook of Zip Code Demographics; and 2) for county and California rates – California Department of Finance. Rates are adjusted to the U.S. 2000 Standard Population. Some records are missing zip code, so counts over the zip codes do not add to County totals. Counts of 1-5 are not reported due to data privacy concerns. Likewise, cells that can be subtracted from totals to get <5 cells are not reported. Rates based on <20 are not calculated due to low stability of estimates. Please note that numbers represent the sum of all three years, while rates are an annual average rate.

Data Source: California Office of Statewide Health Planning and Development (OSHPD) ED Databases. Notes: Numerator for rates is ED visits with a principal diagnosis using ICD-9 code 493. Denominator for rates is the estimated number of residents based on: 1) for zip codes - the ESRI Community Sourcebook of Zip Code Demographics; and 2) for county and California rates – California Department of Finance. Rates are adjusted to the U.S. 2000 Standard Population. Some visits are missing zip code, so counts over the zip codes do not add to County totals. Counts of 1-5 are not reported due to data privacy concerns. Likewise, cells that can be subtracted from totals to get <5 cells are not reported. Rates based on <20 are not calculated due to low stability of estimates. Please note that numbers represent the sum of all three years, while rates are an annual average rate.

## I. Hospitalizations by Zip Code and Age

Asthma Hospitalizations, 2006-2008 Aggregated Number (N) and Age-Adjusted Rate per 10,000 Residents San Francisco County, by Zip Code and Age								
Zip Code	Age 0-17		Age 18-64		Age 65+		Total, All Ages	
	N (3-yr total)	Rate (annual avg.)	N (3-yr total)	Rate (annual avg.)	N (3-yr total)	Rate (annual avg.)	N (3-yr total)	Rate (annual avg.)
94102	12	--	80	10.7	51	39.3	143	14.7
94103	10	--	49	8.7	25	28.1	84	11.5
94104	0	--	<5	--	<5	--	6	--
94105	0	--	<5	--	0	--	<5	--
94107	19	--	37	7.4	17	--	73	14.0
94108	<5	--	<5	--	28	30.2	35	6.3
94109	8	--	38	3.2	47	17.6	93	5.7
94110	52	12.9	61	4.0	63	35.5	176	10.2
94111	0	--	<5	--	<5	--	6	--
94112	81	17.8	86	5.6	129	39.3	296	13.0
94114	7	--	21	3.0	18	--	46	6.8
94115	18	--	63	9.7	44	33.0	125	14.1
94116	15	--	22	2.4	31	14.1	68	5.2
94117	12	--	25	3.1	13	--	50	7.2
94118	11	--	13	--	28	17.9	52	5.2
94121	11	--	20	--	38	19.2	69	5.4
94122	23	10.2	33	2.8	51	22.0	107	7.1
94123	<5	--	<5	--	8	--	14	2.0
94124	41	14.9	77	12.5	36	34.3	154	15.9
94127	7	--	11	--	13	--	31	5.1
94129	0	--	<5	--	0	--	<5	--
94130	9	--	10	--	0	--	19	--
94131	9	--	15	--	8	--	32	4.2
94132	9	--	11	--	22	17.2	42	5.2
94133	<5	--	10	--	51	32.2	65	6.3
94134	35	12.6	46	5.5	55	31.3	136	10.6
SF Overall	403	9.9	758	4.5	795	23.5	1,956	8.3
CA Overall	32,299	10.9	41,840	5.8	25,304	20.3	99,441	8.9

Data Source: California Office of Statewide Health Planning and Development (OSHPD) Patient Discharge Databases  
Notes: Numerator for rates is hospitalizations with a principal diagnosis using ICD-9 code 493. Denominator for rates is the estimated number of residents based on: 1) for zip codes - the ESRI Community Sourcebook of Zip Code Demographics; and 2) for county and California rates – California Department of Finance. Rates are adjusted to the U.S. 2000 Standard Population. Some records are missing zip code, so counts over the zip codes do not add to County totals. Counts of 1-5 are not reported due to data privacy concerns. Likewise, cells that can be subtracted from totals to get <5 cells are not reported. Rates based on <20 are not calculated due to low stability of estimates. Please note that numbers represent the sum of all three years, while rates are an annual average rate.

## II. ED Visits by Zip Code and Age

Asthma ED Visits, 2006-2008 Aggregated Number (N) and Age-Adjusted Rate per 10,000 Residents San Francisco County, by Zip Code and Age								
Zip Code	Age 0-17		Age 18-64		Age 65+		Total, All Ages	
	N (3-yr total)	Rate (annual avg.)	N (3-yr total)	Rate (annual avg.)	N (3-yr total)	Rate (annual avg.)	N (3-yr total)	Rate (annual avg.)
94102	60	58.6	473	63.6	101	77.8	634	64.5
94103	51	56.9	317	53.5	41	46.8	409	53.2
94104	0	--	35	707.4	5	--	40	472.4
94105	6	--	14	--	5	--	25	52.8
94107	45	63.7	168	34.9	27	36.2	240	42.7
94108	<5	--	33	12.4	32	34.1	67	13.5
94109	43	36.4	286	25.6	84	33.4	413	29.6
94110	190	48.1	443	27.6	112	63.1	745	37.3
94111	0	--	28	39.7	<5	--	32	26.2
94112	280	62.0	392	27.2	196	60.3	868	40.4
94114	28	36.0	138	19.3	36	45.1	202	26.7
94115	64	60.1	335	51.7	104	80.8	503	57.2
94116	61	30.8	112	13.9	58	26.2	231	19.8
94117	45	50.6	206	23.4	27	33.7	278	31.7
94118	41	26.5	111	13.8	48	30.7	200	19.2
94121	50	29.2	121	13.8	42	21.2	213	18.7
94122	74	32.7	143	12.7	73	30.7	290	20.1
94123	20	29.7	52	9.3	14	--	86	15.2
94124	202	73.4	464	75.0	70	66.6	736	73.5
94127	38	38.5	48	16.1	22	22.2	108	22.7
94129	<5	--	8	--	<5	--	11	--
94130	23	316.2	44	116.2	0	--	67	153.0

94131	42	36.9	101	17.6	25	20.2	168	22.9
94132	45	35.7	108	18.6	38	29.0	191	24.3
94133	30	37.8	67	12.5	57	36.4	154	22.1
94134	175	62.4	256	32.4	93	53.0	524	42.7
SF Overall	1,633	42.3	4,604	29.1	1,333	39.6	7,570	33.8
CA Overall	192,633	65.3	251,463	35.2	44,261	35.6	488,357	43.0

Data Source: California Office of Statewide Health Planning and Development (OSHPD) ED Databases. Notes: Numerator for rates is ED visits with a principal diagnosis using ICD-9 code 493. Denominator for rates is the estimated number of residents based on: 1) for zip codes - the ESRI Community Sourcebook of Zip Code Demographics; and 2) for county and California rates – California Department of Finance. Rates are adjusted to the U.S. 2000 Standard Population. Some visits are missing zip code, so counts over the zip codes do not add to County totals. Counts of 1-5 are not reported due to data privacy concerns. Likewise, cells that can be subtracted from totals to get <5 cells are not reported. Rates based on <20 are not calculated due to low stability of estimates. Please note that numbers represent the sum of all three years, while rates are an annual average rate.

### III. Hospitalizations by Race/Ethnicity

Asthma Hospitalizations, 2006-2008 Aggregated Number (N), San Francisco County, by Zip Code and Race/Ethnicity				
Zip Code	White	Black	Hispanic	API
94102	49	56	9	22
94103	21	21	13	20
94104	<5	0	0	<5
94105	0	<5	0	0
94107	20	30	9	11
94108	7	<5	<5	26
94109	39	19	8	24
94110	58	21	61	26
94111	<5	<5	0	<5
94112	56	49	47	135
94114	27	<5	10	<5
94115	30	70	<5	15
94116	25	<5	5	31
94117	14	28	<5	<5
94118	30	0	<5	18
94121	25	<5	<5	35
94122	39	<5	<5	57

94123	10	<5	0	<5
94124	16	95	14	26
94127	18	<5	<5	<5
94129	<5	0	0	0
94130	<5	15	<5	0
94131	20	<5	<5	<5
94132	12	11	<5	15
94133	13	5	<5	39
94134	25	34	20	47
<b>SF Overall</b>	<b>573</b>	<b>492</b>	<b>228</b>	<b>573</b>
<b>CA Overall</b>	<b>39,518</b>	<b>18,672</b>	<b>29,214</b>	<b>8,038</b>

Data Source: California Office of Statewide Health Planning and Development (OSHPD) Patient Discharge Databases. Notes: Hospitalizations include those with a principal diagnosis using ICD-9 code 493. Some records are missing zip code, so counts over the zip codes do not add to County totals. Counts across races/ethnicities do not add up to totals in tables above because some had unknown or other race/ethnicity. Counts of 1-5 are not reported due to data privacy concerns. PI=Pacific Islander. White, Black, and Asian/PI are non-Hispanic.

#### IV. ED Visits by Race/Ethnicity

<b>Asthma ED Visits, 2006-2008 Aggregated Number (N), San Francisco County, by Zip Code and Race/Ethnicity</b>				
<b>Zip Code</b>	<b>White</b>	<b>Black</b>	<b>Hispanic</b>	<b>API</b>
94102	238	214	67	60
94103	142	102	53	54
94104	30	<5	<5	7
94105	8	9	<5	<5
94107	72	79	29	20
94108	24	6	5	29
94109	188	96	32	56
94110	246	125	199	75
94111	27	<5	0	<5
94112	175	120	198	276
94114	137	19	18	14
94115	145	272	14	41
94116	85	16	13	89
94117	113	107	21	18

94118	110	8	12	46
94121	105	17	6	69
94122	124	11	24	107
94123	69	5	<5	9
94124	51	450	61	81
94127	62	6	9	20
94129	10	0	0	0
94130	15	41	6	<5
94131	79	44	11	17
94132	61	65	19	41
94133	46	26	6	64
94134	75	179	76	130
SF Overall	2,489	2,067	901	1,337
CA Overall	169,561	97,773	162,627	22,407

Data Source: California Office of Statewide Health Planning and Development (OSHPD) ED Databases. Notes: ED visits include those with a principal diagnosis using ICD-9 code 493. Some visits are missing zip code, so counts over the zip codes do not add to County totals. Counts across races/ethnicities do not add up to totals in tables above because some had unknown or other race/ethnicity. Counts of 1-5 are not reported due to data privacy concerns. PI=Pacific Islander. White, Black, and Asian/PI are non-Hispanic.



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