Case Study on Asthma in Bayview Hunters Point

Asthma is a condition in which the airways temporarily become impeded, causing labored breathing, wheezing or coughing. During an asthma attack, the muscles tighten around the airways, constricting the free exchange of air. The lining of the airways becomes inflamed and swollen, and mucus accumulates, causing plugging of the airways and coughing.

While the absence of nationwide asthma-tracking data limits what is known about the disease, we do know that children are particularly vulnerable to asthma and that death rates are climbing. We know that African Americans in general, and African-American children in particular, suffer from asthma more frequently than white Americans. Residents of low-income urban neighborhoods, like the Bayview Hunters Point area of San Francisco, are sickened by asthma more than those who live in other areas.

Asthma in Bayview Hunters Point: What the Numbers Tell Us

In 1999, Bayview Hunters Point Health and Environmental Assessment Task Force researchers conducted a community health survey (in collaboration with the University of California San Francisco and the San Francisco Department of Public Health). In the study, adults were asked how many people in their households had asthma. Overall, 10 percent of Bayview Hunters Point residents said they have asthma, compared to 5.6 percent nationally. The asthma rate for children in Bayview Hunters Point was one in six (15.5 percent).

From 1994-96 the asthma hospitalization rate of Bayview Hunters Point residents was the highest in San Francisco (491 per 100,000 compared to 355 per 100,000 overall). The hospitalization rate for Bayview Hunters Point children was 781 per 100,000.

African American children are particularly vulnerable to asthma. In San Francisco, the rate of hospitalization for asthma for African Americans of all ages was 478/100,000. In

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the same period, there was a hospitalization rate of 785 per 100,000 among African-American children. The Department of Public Health estimates that Bayview Hunters Point African American children are hospitalized more frequently: 820 hospitalizations per 100,000. From 1995-1997 San Francisco had higher hospitalization rates for asthma than all but one California county for Hispanic (351 per 100,000) and Asian/other children (213 per 100,000) aged 0-14. San Francisco had the sixth highest hospitalization rate in California for non-Hispanic white children (221 per 100,000).  

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<th>1995-1997 Asthma Hospitalization in San Francisco</th>
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<td>Rates Per 100,000</td>
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<td>African American Children Ages 0-14</td>
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<td>Asian Children Ages 0-14</td>
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Hospitalization rates tell only a small part of the story. What we do not know is why asthma rates in Bayview Hunters Point are so high, nor indeed do we know the true levels of asthma incidence (new cases) in the area. Critical to understanding and acting on environmental hazards to reduce asthma prevalence in Bayview Hunters Point is the need for more reliable data on asthma and better information on air pollution and other asthma triggers—and more satisfactory ways to track them.

**Bayview Hunters Point: Community Profile**

Bayview Hunters Point lies in the far southeast corner of San Francisco. It is bounded by San Francisco Bay on the south and east and Route 101 on the west. The northern edge of the neighborhood (zip code 94124) consists of warehouses, depots and defunct military sites, now slated for a massive redevelopment. Bayview Hunters Point has more than 27,000 residents, a large majority of whom are African American (61%). Asian/Pacific Islander (22%), Caucasian (9%) and Latinos make up the rest of the area residents. Sixty percent of San Francisco’s African-American public school children live in the community. Fifty-two percent of area households are classified as low or very low income. Unemployment, currently fewer than 5 percent in San Francisco as a whole, is well over 10 percent in Bayview/Hunters Point.

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Bayview Hunters Point also contains one-third of the city’s hazardous waste sites. The Environmental Defense Scorecard shows the area to have four times as many toxins released as any other San Francisco neighborhood and to have four times the state rate of hospitalization for chronic illness. Of 39 pollutants measured by the Bay Area Air Quality Management District, Bayview Hunters Point had the highest concentration (20). Studies show that the area has 700 hazardous waste material facilities, 350 underground petroleum storage tanks and two Superfund cleanup sites, including the Hunters Point Naval Shipyard. The Naval Station has 17 contaminated sites.\(^5\)

The area contains a high concentration of facilities that currently release air pollution, including two power plants and a sewage treatment plant that processes 80 percent of the city’s water. Bayview Hunters Point contains most of the city’s diesel refueling sites, school bus yards, highway patrol car yards, taxi companies, passenger vanpools and tour van company depots. Recently the city opened a Muni Railway diesel refueling station in Bayview, increasing the exhaust levels from vehicles in the area. In addition, Third Street, which cuts through the neighborhood, is the truck bypass for Highway 101. Heavy diesel trucks rumble through the neighborhood 24 hours a day.

Most of the housing in Bayview Hunters Point is substandard rental and public housing, which exposes many families to asthma triggers lurking in old carpeting, flaking paint, mold and mildew, and wastes produced by cockroaches, dust mites and mice. Even pesticides used to combat the vermin can aggravate asthma conditions.

**Asthma: What Bayview Hunters Point Families Face**

In 1999, the Asthma Task Force (an outgrowth of a task force founded by the Carver School, see below) conducted a community-initiated, community-led participatory action study of families of students attending the six Bayview Hunters Point elementary schools. Several families surveyed reported as many as five siblings or relatives in the same household suffering from asthma.

In the survey, many parents with asthmatic children indicated very limited knowledge about their children’s medication: when asked to name their child’s medication, many responded, “I don’t know” or, vaguely, “the pump.” Only 38 percent of parents reported having received information about their children’s asthma.

Parents who receive inadequate instruction on asthma care from health professionals and inconsistent medical attention for their children struggle to keep their children’s asthma attacks at bay. Children who self-administer their medications are particularly at risk. One mother of an adolescent asthmatic commented that her daughter often fails to complete the two-part treatment for an attack once her initial symptoms are relieved. Families managing complex regimens of care for several family members have an especially difficult task.

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In the Asthma Task Force study, a significant number of diagnosed asthmatic students missed more than five days of school in the prior 12 months because of asthma-related illness, several students missed 10 or more schooldays. Fifteen percent of respondents to the Task Force study reported that their children had been seen or treated by a physician for ‘unexplained’ respiratory problems in the prior 18 months. Thirty-seven percent of families reported that asthmatics in their households had two or more emergency room visits for acute care in the prior 12 months.

Among families returning the survey, the study found that a high number of Bayview asthmatics reported being hospitalized for asthma in their lifetimes. Nineteen percent reported two or more hospitalizations. The San Francisco Department of Public Health study conducted by Community Health Specialist Jennifer Mann, revealed that the asthmatic adults and children of Bayview were hospitalized at four times the state average rate.6

**Medical and Community Response to the Asthma Crisis in Bayview Hunters Point**

As with similar neighborhoods in other urban areas, medical coverage of Bayview Hunters Point residents is poor. Bayview has only 33 doctors per 100,000 population, compared with the Marina, an affluent neighborhood in San Francisco, which has 228.

Living conditions in public housing and low-cost rental units are challenging for families. To help families caring for asthmatics at home, the San Francisco Department of Public Health provides home visits to identify asthma triggers, and nurses supply videos, bed covers, crib covers, pamphlets and other instruction. In their reports on home visits, the doctors and nurses often note the presence of crumbling walls, water seepage, and mildew and mold present on ceilings and interior walls. The reports also describe caregivers’ lack of understanding of the importance of removing asthma triggers in the home and incomplete knowledge about the proper use of medication.

Since the mid-1990s, efforts to understand the causes and control the asthma epidemic in Bayview Hunters Point have intensified. In 1996, the Dr. George Washington Carver Elementary School formed an Asthma Education Task Force in partnership with the American Lung Association, Kaiser Permanente San Francisco and the Top Ladies of Distinction, an African-American women’s service organization. Carver piloted the ALA’s Open Airways Curriculum to educate children about asthma. The curriculum was introduced in the spring of 1997 at the 21st Century Academy and adopted for use by the Bayview Hunters Point Healthy Start six-school collaborative in the 1997-98 school year. The schools are continuing to use the curriculum, even though there is resistance to the course because it competes for time with academic instruction.

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In 1997, the Carver Elementary School Asthma Education Task Force enlarged its scope, evolving into a coalition of 42 member organizations.

Asthma Task Force members developed a nonprofit organization, the Asthma Resource Center of San Francisco, to provide an organizational home for school- and community-based asthma education and outreach activities.

Also in 1997, a number of key organizations initiated the “Yes We Can” Urban Asthma Partnership with the goal of developing a new medical/social model of asthma management for low-income children citywide. The “Yes We Can” partnership includes San Francisco State University, City College of San Francisco, Bayview Hunters Point Healthy Start Collaborative, the San Francisco Health Plan, the San Francisco Department of Health and Kaiser Permanente, with leadership from the Asthma Task Force, the Asthma Resource Center and the support of the Regional Asthma Management Program.

For those who have been hospitalized or treated for respiratory problems in emergency rooms, the San Francisco Public Health Service initiative, Healthy Start, has provided integrated case management, referral and follow-up services to Bayview residents. In addition, Healthy Start has been a catalyst for change by helping establish community and school health projects, supporting education programs, and stimulating policy reforms.

The Bayview Hunters Point Health and Environmental Resource Center (HERC) began its work on November 20, 1999, and is funded by the San Francisco Department of Public Health. HERC’s Breathing Counts Program provides school-based asthma education, community presentations, workshops and trainings. In the past year, HERC sponsored week-long day camps for children with asthma during school breaks and summer. In 2000, HERC also began providing on-site health education and referrals for residents living in Bayview’s public housing.

To build community capacity to deal with high rates of asthma in Bayview Hunters Point, Healthy Start and City College of San Francisco/State University formed a partnership to certain family outreach workers in the community health worker certificate program at the City College of San Francisco. This partnership also initiated a mini-certificate on asthma centered in the City College campus in Bayview Hunters Point. This program continues today in a modified format.

**Environmental response**

Environmental activists have worked for years to draw attention to radioactive and other toxic substances on the Naval Shipyard site and emissions generated by power plants, fuel depots, heavy trucks and machinery. Frequent fires have erupted in areas where toxic substances have been dumped, sickening residents and alarming neighborhood leaders. The *San Francisco Bay View*, a neighborhood newspaper, is an insistent voice for the residents. Other neighborhood organizations, including the Southeast Alliance for
Environmental Justice, Bayview Associates, and Communities for a Better Environment have amassed an extensive record of advocacy and organizing on environmental health issues. Many of the groups’ efforts have focused on the lack of adequate air quality monitoring data for Bayview Hunters Point in determining the effects of pollution on asthmatics. In an interview, Dr. Ahimsa Sumchai, a physician-activist, called specifically for more intense monitoring of volatile organic compounds in the air, which are known triggers of asthma.

After many years, environmental groups and health advocates were successful in persuading the San Francisco Board of Supervisors to establish an official Asthma Task Force to make recommendations to the city regarding interventions and programs to help Bayview Hunters Point residents and other asthma sufferers. The task force will begin work in the next few months.

**Missing: Critical Data to Allow Tracking of Possible Links Between Environmental Hazards and Asthma**

Currently, the efforts to lower the high rates of asthma in Bayview Hunters Point are confined to identifying children who are suffering from asthma or have asthma-like symptoms, outlining the barriers to proper medical care for children and adults in the neighborhood, and making recommendations for better medical care, education and prevention of asthma. While critical, they are only components of a broader and more strategic approach to asthma eradication.

Crucial to formulating and implementing a strategic plan for asthma in Bayview is an understanding of the impact of broader environmental factors on the health of Bayview residents. While the number of toxic and hazardous sites, the number and location of diesel and other pollutant sites, and the general condition and quality of the soil, water and air are generally available, current statistics are inadequate to give policymakers the empirical evidence they need to respond to the asthma crisis in Bayview Hunters Point. For example, air quality is monitored at one fixed site in San Francisco, and reflects the air quality of the general area. There is substantial agreement among Bayview residents, activists, and researchers that air quality in Bayview is considerably worse than in any other area of San Francisco. Yet there is no ongoing air quality monitoring of the Bayview Hunters Point neighborhood by any governmental entity. Other data, such as hazardous and toxic emissions, are not reported in specific enough detail to enable health officials to establish links to asthma in the precise area of Bayview.

Moreover, the available data currently collected on asthma is inadequate to fully understand the causes and triggers of the disease. In her November 2000 report on asthma in San Francisco, Jennifer Mann, writes “While hospital discharge diagnoses for all conditions are routinely reported to the State of California Office of Statewide Health Planning and Development (OSHPD)...emergency room visits are not currently reported.” Other data that may become available, such as MediCal reports, are not useful, Mann states, since there is no legal requirement for agencies to submit reports. In fact,
recent reviews of data from MediCal indicate a dramatic undercount of cases as a result of low reporting levels.  

A 1999 report by the Regional Asthma Management and Prevention Initiative (RAMP), relates that “the OSHPD database of hospitalizations is the only publicly available database for tracking asthma morbidity in California, although by 2002 emergency room data will be available. However, having timely access to prevalence data for the population as a whole is still missing and every potential source of data has bias…”

Megan Webb, RAMP director, explains further that without demographic and other information on residents, it is nearly impossible to determine whether the asthma incidence is rising or falling, whether the incidence is changing in certain age groups, or how to account for disparities in ethnic groups, occupations or gender. Moreover, Ms. Webb continues: “Public health officials cannot assess the impact of medical intervention and education, nor determine how to allocate medical resources to meet the needs.” Ms. Webb describes current data-gathering methods as inadequate, preventing precision in assessment of neighborhoods as small as Bayview Hunters Point.

In an interview, Dr. Rajiv Bhatia of the San Francisco Public Health Service expressed frustration with current medical and environmental data. He states that the lack of adequate data is a barrier to effective management of asthma. Currently, he says, there is little in the data to guide physicians in helping families control indoor contaminants and triggers or to lead public officials to remove or eradicate these triggers. Further, he continues, there is no data that can help public health officials determine the proper levels and under what conditions and when, to lower contaminants that can reduce asthma attacks in areas such as Bayview. Dr. Bhatia concludes that without an integrated national health-care data system that tracks all chronic diseases and includes environmental factors, it is nearly impossible to generate hypotheses that can be tested in areas as small as neighborhoods.

**Tracking: One of the critical steps to action**

Finally, without medical and environmental data that can be analyzed, community residents continue to distrust public-health officials and policymakers who are seeking to help the Bayview Hunters Point residents. Leaders of community organizations in Bayview Hunters Point have been fighting for years to obtain information on air quality, toxic emissions and other contaminants. Many leaders and residents have become cynical about the purpose of government data gathering, and they are bitter that the federal, state and local governments are the “biggest culprits” in contributing to the environmental

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conditions in Bayview. One activist complains that the Environmental Protection Agency’s information gathering is merely for determining hypotheses and is not focused adequately on the health consequences of pollution and other contaminants. Others point out that the U.S. Navy’s administration of the base at Hunters Point and the federal and city housing agency’s inability to keep the public housing in good condition only worsens the health situation for poor people in the area.

The data on asthma that is currently collected is inadequate to fully understand its causes and is unavailable for community needs. In the November 2000 report on asthma in San Francisco, Jennifer Mann writes, “While there are several national reports that monitor trends in asthma prevalence, office and emergency room visits, hospitalizations and deaths, little of this information is available at the state or local level.” She also states, “In the United States, there is no routinely collected information on asthma prevalence in children at the state or local level.”

Comprehensive health tracking -- gathering where and when the disease occurs and possible links to environmental factors -- would have given Bayview Hunters Point families and public health officials information to better prevent chronic diseases like asthma.
American Lung Association. “Lung Disease in Minorities.”  


