



THE DORCHESTER
Environmental Profile

Dorchester Environmental Health Coalition
January 6, 2003

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Dorchester Environmental Health Coalition
~ A Dotwell Program ~

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Executive Summary and Community Priorities

As Boston's largest neighborhood, Dorchester is the quintessential urban community. Of mixed income, extraordinarily diverse, politically active and traversed by infrastructure important to the entire state, the neighborhood is a complex set of assets and deficits.

Dorchester, covering 6.1 square miles, has a population of 92,115, or 15.6% of the city's total population of 589,141. 27% of residents are under the age of 18, 36% of Dorchester residents identify themselves as Black, 32% as White, 12% as Latino/a, 11% as Asian or Pacific Islander and 10% as other race, multi-racial, or Native American.

Some natural assets - Boston Harbor (Malibu Beach and Tenean Beach), Franklin Field, and the Neponset River - border Dorchester. Unfortunately, Dorchester is also home to hazardous waste sites (255 brownfields), water pollution caused by sewer overflows and contaminated storm drains, diesel bus routes, industrial facilities (150 facilities), aged housing stock (23% of homes tested, were positive for lead), and fewer quality open spaces (6 acres per 1000 people) – all of which decrease the utility of assets and impact the health of the environment and of residents.

This Profile portrays environmental conditions as compared to those of surrounding communities and poor health indicators for Dorchester residents. Its creation shows a commitment to understanding and reversing the trends of poor health and environment that many of its neighborhoods have suffered. We are hopeful that this resource will help lead the Dorchester community toward articulating a vision for a healthier community and laying out a plan for achieving it.

In order to define and achieve this vision, the Dorchester Environmental Health Coalition (DEHC), which commissioned this Profile, has developed a neighborhood-wide network of organizations and residents ready to move forward. The Profile is put forward as a living document – any data that will help us more fully understand Dorchester's environment and its impact on health will be incorporated as it is uncovered. The Profile also serves as a call to foundations, local and state health agencies and public health researchers. Their efforts are needed to fill in the gaps in our knowledge about health hazards in Dorchester's environment and to support appropriate intervention in our neighborhoods.

Since March 2002 the Coalition has worked to assess need and define priorities throughout Dorchester. Beyond the data gathered in this document, teen peer leaders from the Codman Square Health Center's program, Breath of Life Dorchester, have collected 200 community surveys. In Fall 2002, DEHC partners reviewed the analyses and identified the following community priorities:

1. Air Quality
2. Environmental Tobacco
3. Green space
4. Hazardous Waste Sites
5. Vehicle Exhaust

With information in hand from science and community, DEHC is prepared to monitor specific environmental concerns in the community, mobilize a Dorchester environmental constituency, and motivate change in the physical environment to realize a healthy community.

DORCHESTER: A Neighborhood Profile

Dorchester is Boston's largest and oldest neighborhood, founded a few months before the City itself in 1630. Dorchester, if incorporated on its own, would be the third largest municipality in the Commonwealth.

GEOGRAPHY

Dorchester faces the Atlantic to the east, and is bordered by the city of Quincy, and the neighborhoods of South Boston, South End, Roxbury and Mattapan. City and state agencies define the boundaries of Dorchester differently with overlap to parts of Roxbury and Mattapan. The land area of Dorchester is 6.1 square miles with a density of 15,101 persons per square mile.¹

SUB-COMMUNITIES IN DORCHESTER

Dorchester as identified by its residents is really a set of communities, though governmental agencies such as the Boston Redevelopment Authority (BRA) sweep the neighborhoods into the broad classifications of North and South Dorchester. Since much of the city data are available under this classification, many nuances that relate to particular neighborhoods, in regard to socio-cultural and economic factors, become homogenized when presented with such broad strokes.

This homogenization has serious implications. When demographic data are averaged to represent the whole neighborhood, they do not bring to light the level of poverty and unemployment in the community, and growth of certain segments of the population remains underestimated. Dorchester is often classified in city data as a community of middle-income groups who benefit from Boston's prosperity and resources, but many pockets of Dorchester remain under thick shadows of poverty, unemployment, poor education, and poor health.

For instance, a marked difference between haves and have-nots across the east and west sides of Washington Street in the Codman Square area marks a clear distinction in important demographic and political facts. Ninety percent of residents living west of Washington Street are people of color and report feeling neglected and separated socially, culturally and economically, cut off from City services, the Boston Public School Department, and other sources of social support.² The neighborhood west of Washington was targeted for "block-busting" (misrepresentation based on race, class and economics of the neighborhood to buyers and sellers of real estate) in the 1970's, and continues to be plagued with vacant lots, auto repair shops, run-down real estate, and abandoned buildings. Residents are mainly low-income families and renters. East of Washington Street, the area

¹ City of Boston, "Dorchester Data Profile," Department of Neighborhood Development. Policy Development and Research Division, 2000 URL:

http://www.cityofboston.gov/dnd/PDFs/Profiles/Dorchester_PD_Profile.pdf

² Codman Square and Four Corners, Millennium Project Community Blueprint, Codman Square Neighborhood Development Corporation and Codman Square Neighborhood Council, 2000

contains neighborhoods such as Ashmont Hill and Melville Park, which gradually gentrified over the past 20 years, and are home to White, middle class families many of whom are homeowners of newly renovated Victorian era single-family houses.

Neighborhood boundaries are not crisp like lines on a map, but rather reflect subtle social delineations. Proximity to an important commercial center, rail transportation or other prominent feature figures heavily in people's conception of neighborhood. In Dorchester, community members and activists hesitate to differentiate between North and South Dorchester, and rather classify about 17 sub-communities in Dorchester. These sub-neighborhoods define the strength and character of the community. Davida Andelman, a prominent community environmental activist in Dorchester at the Bowdoin Street Health Center, suggests the following sub-communities for what has heretofore been referred to as North and South Dorchester:

North Dorchester: Columbia/Savin Hill, Freeport Adams, Fields Corner, Bowdoin/Geneva/Meeting House Hill, Uphams Corner, Four Corners, Grove Hall and Dudley Street

South Dorchester: St. Marks, Lower Mills, Neponset, Port Norfolk, Adams Village, Franklin Hill/Franklin Field, Ashmont, Ashmont Hill, and Codman Square.³

While the focus of Dorchester Environmental Health Coalition (DEHC) is to address the environmental health issues in the whole of Dorchester, our data tends to focus on the areas of Codman Square, Fields Corner, and Bowdoin/Geneva. We intend to include data as it becomes available.

TRENDS BY POPULATION GROWTH

The 2000 U.S. Census data show that Dorchester has a population of 92,115 residents, constituting 15.6% of Boston's total population of 589,141. Dorchester's population grew significantly between 1990 and 2000, with an increase of 6,417 residents (or 7.5%) over the 1990 population of 85,698.⁴

RACIAL/ETHNIC PROFILE OF DORCHESTER

Prior to 1970, Dorchester's population was primarily White, although the presence of a significant African-American population dates back to the 1940's. During the 1970's and 1980's, Boston saw significant immigration of Latin Americans, Caribbean Islanders, Cape Verdeans and Southeast Asians into its neighborhoods. Poles, Lithuanians, and others from Eastern Europe were also added to this multi-cultural mix. Access to cheaper, multi-family housing meant that many of these newcomers settled in Dorchester. As we start the 21st

³ Interview with Davida Andelman, Bowdoin Street Health Center, conducted by Bindu Panikkar, Coordinator of Dorchester Environmental Health Coalition, May, 2002

⁴ Boston Public Health Commission, "Health of Boston 2001," Research and Technology Services, Boston, MA 2001

century, Dorchester's primarily working and middle class population represents one of the most diverse in the city of Boston.

The 2000 census data shows a 68% non-white population in Dorchester. Ninety-five percent identified as one race while 5% identified themselves as multiracial. The largest group was Black or African American (36%); White non-Hispanic (32%); Latino (12%); Asians (11%), and Native Americans (<1%); about 4% identified themselves as belonging to the category of Other Race.⁵

Trends by Race

The past decade has seen a decrease in the White population in Dorchester and an increase in the numbers of non-White moving to the neighborhood. Asian and Pacific Islanders constitute the largest increase. As previously mentioned, interpreting the information presented from city, state and federal sources (which are based on differing geographically determined areas) makes it difficult to reconcile the data; however, the following table clearly shows this trend.

Trends in Population by Race 2000						
Race	N Dorchester (%)			S Dorchester (%)		
	1990	2000	% Change	1990	2000	% Change
Asian/Pacific Islander	6%	13%	136%	3%	10%	204%
Native American	0%	0%	0%	0.0035%	0.0037%	11%
Black	20%	24%	41%	36%	42%	19%
Hispanic Latino	14%	14%	13%	10%	10%	5%
White	53%	36%	-22%	48%	30%	-35%
Other/Single Race	6%	6%	14%	2%	3%	123%
Multi-race		9%			5%	
White	53%	36%	-22%	48%	30%	-35%
Minorities	47%	64%	56%	52%	70%	41%

Source: BRA Neighborhood Data

Community-Based Racial/Ethnic Profile for Fields Corner and Codman Square

The Codman Square and Fields Corner neighborhoods represent over half the population of Dorchester. Codman Square is 68% African American. A significant portion of Boston's Asian/Pacific Islander population resides in Fields Corner – making up 14% of the community. Of these residents, approximately 85% are Vietnamese, with the rest constituting Chinese, Indians, and Guamanians.⁶ The Latino population in the Fields Corner and Codman Square areas hail mainly from Puerto Rico, Dominican Republic, Honduras, Mexico, Cuba, Peru, Guatemala, El Salvador and other Central South American countries. The majority of Blacks born outside the U.S. are of Caribbean origin, mostly from Haiti and the West Indies. Similar information is being developed for other Dorchester sub-communities.

⁵ City Of Boston, "Dorchester Data Profile," Department of Neighborhood Development. Policy Development and Research Division, 2000 URL:

http://www.cityofboston.gov/dnd/PDFs/Profiles/Dorchester_PD_Profile.pdf

⁶ Boston Redevelopment Authority, "North and South Dorchester," BRA, 2002

Population by Race 2000									
	Total Population	Minority	White	African American	Native American	Hispanic/Latino	Asian	Hawaiian	Other
Boston	589,141	46%	54%	25%	0.40%	14%	8%	0.06%	8%
Codman Square and Fields Corner	84,767	79%	21%	52%	1%	14%	9%	0.06%	10%
Codman Square Only	42,437	86%	14%	68%	0.50%	14%	4%	0.05%	7%
Fields Corner Only	42,330	72%	28%	37%	1%	14%	14%	0.07%	13%

Source: Census 2000

AGE DEMOGRAPHICS

Dorchester’s population is quite young compared to the rest of Boston. *Boston Indicators of Progress, Change and Sustainability* shows Dorchester has the highest percentage of Boston’s children with a population under 18 years.⁷ The U.S census shows a population of 25,134 under 18, representing 27% of the population in Dorchester.⁸

Age, 2000		
Age	Dorchester	Boston
Under 18	25,134 (27%)	116,559 (20%)
18-64	58,867 (64%)	411,246 (70%)
65+	8,114 (9%)	61,336 (10%)

Source: Census 2000

IMMIGRANTS

Dorchester has one of the highest new immigrant populations in Boston. A 1999 community survey conducted by Codman Square Health Center and Dorchester House Multi-Service Center show that 24% of the population in the area was born outside of the United States and Puerto Rico.⁹ Community data also show more representation from the following groups than are officially represented: Sub-Saharan African, Italian, Polish, French, Cape Verdean, Arab, Dutch, Lithuanian, and Scotch-Irish.

LANGUAGE

Community surveys also show a significant number of Dorchester residents whose native language is other than English. About 15% of the population in the Codman Square area speak languages other than English at home, and 22% of the population in the Fields Corner area speak languages other than English at home. Languages spoken at home include: Haitian Creole, French, Portuguese, Cape Verdean Creole, Spanish and Vietnamese.¹⁰

⁷ City of Boston, and Boston Foundation, “The Wisdom of Our Choices: Boston Indicators of Progress, Change and Sustainability 2000,” The Boston Foundation, 2000

⁸ City Of Boston, “Dorchester Data Profile,” Department of Neighborhood Development. Policy Development and Research Division, 2000

⁹ Codman Square Health Center, “Codman Square Community Survey: 1996 –1999”, Codman Square Health Center, 1999 and Dorchester House Multi-service Center, “Fields Corner Community Survey”, Dorchester House, 1999

¹⁰ Ibid

ECONOMIC PROFILE

Household income range varies widely throughout the Dorchester area, with a stark contrast between pockets of high-income neighborhoods and low-income neighborhoods. Based on a 1998 Census estimate, the median household income in Dorchester is \$42,221 which is higher than the Boston median household income of \$39,987. However, a community survey conducted in Codman Square and Fields Corner in 1999 show about 20-26% of the population living in poverty earning an household income of less than \$20,000 per year. According to 2000 data, the poverty rate is higher in Dorchester, 16.8%, compared to Boston's 16.7%.¹¹ Although Dorchester benefited from the economic boom of the 1990's, that benefit came late and did not permeate through the entire population. When the current recession began, many of Dorchester's residents who had begun employment or had recently become economically stable were often the first laid off from their jobs.

EDUCATION AND EMPLOYMENT PROFILE

Community surveys report that many young people face obstacles to getting started in the labor market due to educational deficiencies, lack of local job opportunities, discrimination, and insufficient understanding of what is required for success in the job market. High rates of poverty, unemployment and lack of education in this neighborhood also increase the rate of child poverty.

Limited education plays a large role in poverty and unemployment. Poverty and unemployment are commonly understood to be related to limited education. A community survey conducted in 1999 showed that 16-23% of the adults have no high school degree and only 27-29% have college degrees.¹²

A disparity in unemployment rates is also experienced by Dorchester's residents. Boston's employment rate in 1999 was 3.3%,¹³ where as the 1999 community survey conducted in Codman square and Fields corner showed an unemployment rate of 10% and 15% respectively.

FAITH-BASED AND CIVIC GROUP PARTICIPATION

The above demographic information ignores many Dorchester assets. A diverse community long home to immigrants from around the world, Dorchester is highly active and has a strong history of social and environmental activism. There are more than 70 civic groups and neighborhood associations in Dorchester. These include crime watch groups, neighborhood associations, religious groups, and merchants associations. Most of these

¹¹ City Of Boston, "Dorchester Data Profile," Department of Neighborhood Development. Policy Development and Research Division, 2000

¹² Codman Square Community Survey, 1999, and Fields Corner Community Survey, 1999

¹³ Boston Indicators, 2000

civic groups are very active and meet monthly with an average attendance of 30 people and more. Codman Square itself has approximately 34 local neighborhood associations.¹⁴

Religious groups play a major role in organizing among sub-neighborhoods and in bringing the community together in Dorchester. The 1999 community survey showed that the majority of residents (71% in Codman Square and 62% in Fields Corner) are active in religious groups, and participation in a variety of clubs, groups and organizations has increased since 1996.¹⁵

¹⁴ Codman Square and Four Corners Millennium Project Community Blueprint, 2000

¹⁵ Codman Square Community Survey, 1999, and Fields Corner Community Survey, 1999

DORCHESTER: An Environmental Profile

Despite the lack of major environmental organizations based in Dorchester, environmental concerns have long been a focus of local community health centers and civic groups such as the Bowdoin Street Health Center, the West of Washington Committee and the Columbia-Savin Hill Civic Association.

Dorchester is densely populated, with typical urban environmental problems including limited green space and tree cover, outdoor air pollution, abandoned industrial buildings, contaminated vacant lots, excessive legal and illegal auto body workshops, illegal dumping, the presence of traces of toxic substances in air water and food and a host of other chemical products in commercial use.

One of the major sources of urban environmental pollution is chemical use and toxic chemical exposures from various media in the community. According to Toxic Use Reduction Act Data, companies in Massachusetts used about 1.37 billion pounds of chemicals in the year 2000, of which almost 127.8 million pounds were generated as waste.¹⁶

There are over 80,000 manmade chemicals in use today. Most of these are new to the environment and their affect upon the health of the environment and living beings are not well understood. Some have known carcinogenic effects, while others show deleterious impact on the neurological, reproductive, developmental, immunological, and/or learning and behavioral development of humans.

Since the beginning of the movement that resulted in the creation of Environmental Protection agency in 1970 environmental health officials have struggled to establish facts and create guidelines and laws that will respond effectively and responsibly to this issue. To date, only a small fraction of potential environmental threats to health have been addressed. Of the 80,000 chemicals in use, less than 5,000 have been tested for their health effects, and no efficient technologies exist to detect the low dose effects of these chemicals and the cumulative effects of even the highly used chemicals. Most chemical exposures occur over time in low doses and do not result in an immediate and visible health effect. Often it is hard to establish cause and effect due to a variety of reasons, multiple exposures to different kinds of chemicals, cumulative and synergistic effects of the chemicals, genetic disposition and other social and life style influences. Though the invisible process of environmental health impacts from toxic release has been difficult to identify and substantiate, more and more new studies show evidence of environmental health effects from hazardous chemical exposure.

In the light of the complexities of chemical use and health impacts, it becomes more important that chemical use in each community be well documented and that information about chemical exposures in each community be made easily available so that risk factors

¹⁶ Massachusetts Toxic Use Reduction Institute, "2000 TURA Data: Report for Massachusetts as a whole," University of Massachusetts, Lowell, MA URL: <http://www.turi.org/turadata/index.html>

are known and not underestimated. In order to understand chemical use in a community we need to know:

- What kind of industrial facilities exist in a community, including both large-quantity and small-quantity facilities, auto body facilities, and other sources;
- What chemicals are being produced;
- The quantities of these chemicals being released into the environment;
- Whether these chemicals are contributing to air, land and water pollution; and,
- Which groups may have increased susceptibility to environmental exposures.

Unfortunately, much of this information is not well documented especially at the neighborhood level. Within this profile, the key Dorchester environmental health concerns investigated include:

- Industrial facilities
- Toxic spills
- Hazardous waste sites
- Landfill sites
- Occupational exposures
- Household chemical use and indoor air quality
- Outdoor air quality
- Drinking and surface water quality
- Availability of open spaces
- Recycling practices

Due to the lack of environmental data at the neighborhood level, there are many gaps in the information presented below. This is especially relevant to chemical use and prevalence within Dorchester. Identifying and inventorying the chemical use in the community is crucial to minimizing and regulating their use and encouraging the substitution of safer chemicals in the community.

INDUSTRIAL FACILITIES

According to the Right to Know Network run by Office of Management and Budget Watch, there were 150 facilities regulated by the U.S. Environmental Protection Agency (EPA) in 1997 in Dorchester.¹⁷ Out of the 150 facilities, 27 have hazardous waste handler permits, and 7 were previously on the national priority list.^{18, 19} According to EPA, 7 facilities ship waste out, generating about 33,533.68 tons of waste per year.²⁰ These represent only those facilities regulated in 1997 by the EPA. Please see Appendix 2 for the EPA regulated facilities.

¹⁷ Right to Know Network, "All Facilities Regulated by EPA," OMB Watch, 2002 www.rtknet.org

¹⁸ Right to Know Network, "Hazardous Waste Handler Permits," OMB Watch, 2002 www.rtknet.org

¹⁹ Right to Know Network, "Superfund sites," OMB Watch, 2002 www.rtknet.org

²⁰ Right to Know Network, "Toxic Release Inventory," OMB Watch, 2002 www.rtknet.org, and Right to Know Network, "Toxic Spills/Releases as Reported to National Response Center," OMB Watch, 2002 www.rtknet.org

Facilities Regulated by EPA in Dorchester, 1997						
Area Zip code	# EPA regulated facilities	Hazardous waste handler permits	Sites on the National Priority List	Facilities that generate, ship, or receive waste	Civil cases reported	Total known waste generated (tons)
Grove Hall 02121	11	5	0	0	None	0
N Dorchester 02122	61	14	4	2	1	33,375
S Dorchester 02124	36	3	0	1	1	0
Uphams Corner 02125	39	5	2	4	None	158.68
Dorchester 02166	3	0	0		None	0
Known Total	150	27	7	7	2	33533.68

Source: Right to know network, OMB Watch, 2000

Large Quantity Facilities: Large Quantity facilities or Toxic Use Reduction Act (TURA) regulated facilities are facilities that use over 10,000 pounds of chemicals with greater than 10 employees. *Unequal Exposures to Ecological Hazards*, a report detailing environmental justice issues in Massachusetts, by Daniel Faber at Northeastern University, shows that there are 7 large-quantity toxic use facilities in Dorchester. Dorchester has the second highest number of TURA facilities after Allston/Brighton in Boston.²¹ However, the rate of chemical use and emissions from these 7 facilities is lower compared to the rest of the neighborhoods in Boston.

Large Quantity Facilities In Dorchester, 1990-1998					
Town	# of TURA distinct Facilities	TURA facilities per sq. mile	TURA total Chemical use (lbs.)	TURA total chemical emissions	TURA chemical emissions per sq. m
Boston	45	1	72,308,959	7,085,345	149,795.90
Dorchester	7	1.2	4,208,250	104,377	17,309

Source: Faber, 2001

Illegal Facilities and other polluting sources and businesses: Hazardous chemical exposures can also occur from sources such as heating oil leaks in homes, curbside auto repair, and chemical exposures from nail salons - sources that are not recorded as part of the EPA registered hazardous facilities in the neighborhood.

Curbside auto body repairs are one of the most commonly seen illegal “businesses” in the neighborhood. The Bowdoin Street Health Center Environmental Health Exposure History survey showed 30% of residents knew someone in the family that repaired cars, and 59% responded they notice cars being repaired on their block by individuals and not in auto shops.²²

A majority of the residents responded that local sources of pollution in Dorchester were auto body workshops and dry cleaners. Some also noted MBTA buses, waste management plants, Boston Edison and paper factory as sources of pollution. The survey also revealed that 57% of the population thinks that there are local sources of pollution in the community that might be affecting their health.

²¹ Faber D and Krieg E, “Unequal Exposure to Ecological Hazards: Environmental Injustices in the Commonwealth to Massachusetts,” Northeastern University, 2001

²² Bowdoin Street Health Center, Environmental Health Personal History Survey, Dorchester, 2000

TOXIC SPILLS

Thirty-nine toxic spills were reported to EPA in Dorchester in 2001.²³ The majority of the releases came from commercial facilities, while some residential toxic release exposures were reported as well. With 326 spills, Dorchester had the third highest toxic spill rate (12%) between 1987 and 2001, with Central Boston at 738 spills and East Boston having 481 toxic spills. This number represents the reported toxic spills only. A complete list of the toxic spills in Dorchester since 1987 is included in Appendix 2. Illegal dumping of toxic chemicals, particularly used motor oil, down household drains, is a commonly reported practice in the neighborhood, which increases the rate of unregistered toxic spills in the community, polluting the sewers and waterways of Boston.

HAZARDOUS WASTE SITES

Suburban sprawl and legal prohibitions against developing contaminated land has left many abandoned commercial and industrial properties in inner city neighborhoods. These lots, known as brownfields, are vacant lots or undeveloped parcels of land contaminated by toxic chemicals left in the ground from previous uses.

Hazardous Waste Sites in Dorchester Compared to Boston, 2000							
Town	Rank	Points	Area in Square miles	# of DEP Waste sites	# of DEP Tier Sites	# of non tier Sites	DEP waste site per square mile
Boston	13	3972	47.3	2210	351	1859	46.7
Dorchester	1	490	6	255	45	210	42.3

Source: Faber, 2001

Some of these brownfield sites are under the inspection of the Massachusetts Department of Environmental Protection (MADEP) and are given a tier classification, others are not. MADEP's tier classification system determines the level of danger a hazardous waste site presents to public health and the environment. The sites are classified into Tier IA, IB, IC, or IIA, with Tier IA sites requiring the most stringent oversight and Tier IIA the least. Out of the 255 hazardous waste sites in Dorchester, 45 sites are tiered sites, representing 13% of tiered sites in the city. There are 210 sites which are not tiered or not yet classified.²⁴

OCCUPATIONAL EXPOSURES

There have been two surveys in the community investigating potential workplace exposures faced by Dorchester residents. The most recent is a statewide pilot to look into the work related health of low-income, minority and immigrant workers, which was conducted at the

²³ Massachusetts Department of Environmental Protection, "Toxic Releases in Massachusetts," MADEP, 2002

²⁴ Ibid

Dorchester House Multi-Service Center among Vietnamese and English speaking patients.²⁵ In partnership with the Massachusetts Department of Public Health's Occupational Health Surveillance Program, Dorchester House administered a brief waiting room survey to 172 Vietnamese- and English-speaking patients. The survey asked about employment, working hours, perceived on-the-job exposures, knowledge of resources, and experience of work related injury in 2001-2002. About 23% of respondents reported working with chemicals on their job, including bleach, disinfectants, cleaning solutions, acids and motor oils/lubricants. 19 % of Dorchester House patients surveyed reported that they breathe in large amounts of dust, smoke, or fumes on the job. 9 % reported a history of injury, illness, or other health problem in the last year that they think is related to work. 39 % of respondents reported that they were not given information about health and safety in their work place. Of Vietnamese patients, 70% had not been given information about health and safety in their workplace. Only two Vietnamese respondents reported being given information in Vietnamese. Of those given safety information in English, half had difficulty reading English.

The second survey on occupational exposure was part of the Community Environmental Health Exposure History in Dorchester conducted by Bowdoin Street Health Center in 2000.²⁶ The survey sampled clients of the health center from Roxbury, Mattapan, South Boston and Dorchester (n=106) and looked into the personal chemical exposure history of residents in Dorchester. The survey examined the home-based chemical exposures, hobby-based chemical exposure, occupational chemical exposure and community-based chemical exposures. The survey also reports general symptoms observed in residents.

Results of Environmental Health Exposure Survey by Bowdoin Street Health Center

Occupational Exposure	Exposure	Cases	Percentage
	Are you exposed to dust	35	33
	Fumes/vapors	16	15.1
	Radiation	6	5.7
	Cleaning solvents	26	24.5
	Other chemicals	9	8.5
	Lead at work	7	6.6
	Do they bring used work clothes home	9	8.5

HOUSEHOLD CHEMICAL EXPOSURE AND INDOOR AIR QUALITY

The environmental threats we face today are as varied as the number of different harmful chemicals we use in our day to day lives, at the workplace and in the home. Some of the life-style and housing based environmental threats include exposures to lead in paint; chromium and arsenic in pressure treated lumber; formaldehyde, styrene and volatile organic compounds in plywood, varnish, laminates and foam insulation; phthalates and bisphenol A in plastics; MTBE in gasoline; Polyvinyl Chloride in sidings, and floorings, hormones and endocrine disrupters in pesticides, food products, cosmetics and food additives; mercury in fish, mold; genetically modified food products; and, cleaning

²⁵ Dorchester House, "Dorchester House Patients and Work Environment, Dorchester House, and Occupational Health Surveillance Program, June, 2002

²⁶ Bowdoin Street Health Center, Environmental Health Personal History Survey, Dorchester, 2000

products, perfume, gasoline and perchloroethylene in dry cleaning agents. The health risks from many of these exposures are still contested hence are not well addressed.

One of the biggest environmental concerns with regard to housing is the quality of indoor air. The fact that the most vulnerable individuals, young children and the elderly, spend the majority of their time indoors makes housing a core issue.

Most people are aware that outdoor air pollution can damage their health but many do not know that indoor air pollution can also have significant health effects. EPA studies of human exposure to air pollutants indicate that indoor levels of pollutants may be 2-5 times, and occasionally more than 100 times, higher than outdoor levels. These levels of indoor air pollutants may be of particular concern because most people spend about 90% of their time indoors.²⁷

Some common indoor pollutants linked to adverse health effects are secondhand smoke, indoor allergens and irritants such as dust mites, mold, pet dander, and cockroaches, radon, lead paint, pesticides, and other chemicals used in the home

Second hand smoke: Every day, 12 million children are exposed to secondhand smoke in their homes. Exposure to secondhand smoke is linked to serious health effects in children, including bronchitis, pneumonia, ear infections, exacerbation of asthma and even sudden infant death syndrome. For children, particularly young children, the most likely place of exposure is their home. In the environmental health personal history survey conducted in 2000 by Bowdoin Street Health Center in Dorchester, 12% of the respondents revealed that they or a member of their household smoke at home.²⁸

Mold and Mildew: Exposure to indoor allergens and irritants may play a significant role in triggering asthma episodes. Mold spores are prevalent in indoor air and spread easily. Live spores act like seeds forming new mold growths, colonies, when they find the right conditions. Moisture, nutrients and warm temperature and stagnant air speeds the growth.²⁹ In the neighborhood environmental health exposure history survey, 10% revealed visible problems with mold and mildew in their homes. Dorchester is known for its older housing stock that tends to have poor indoor air quality. This, coupled with high rates of asthma, identifies the need to improve home conditions.

Lead Paint: Homes with high levels of lead – due primarily to lead-based paints applied prior to 1978 – are the main source of children’s exposure to lead. Approximately 90% of the housing stock in Dorchester was built before 1940. The Environmental Health Exposure History survey found that 54% of the homes have been tested for lead; of homes tested, 23% tested positive for the presence of lead.

²⁷ U.S Environmental Protection Agency, “Indoor Air Quality,” USEPA, July 1, 2002 URL: <http://www.epa.gov/iaq/>

²⁸ Bowdoin Street Health Center, Environmental Health Personal History Survey, Dorchester, 2000

²⁹ U.S Environmental Protection Agency, “Indoor Air Quality,” USEPA, July 1, 2002 URL: <http://www.epa.gov/iaq/>

Pesticide and Chemical Use at Home: Pesticides are chemicals used to reduce the presence of insects, rodents and other pests as well as some common cleaning agents that contain pesticide-strength disinfectants. Herbicides, used to deter weeds, are in widespread domestic use. Many the pesticides and herbicides are potential neurotoxins. These chemical mixtures are usually highly diluted and used in small amounts, however, susceptible individuals such as the sick, children and elderly may have more severe reactions to even small amounts of these chemicals. The Environmental Health Exposure History Survey discovered that 29% of residents use pesticides at home.

Ranking all the environmental exposures in the Bowdoin Street survey, the local exposure sources of highest concern in the community of Dorchester include:

- Live near a heavily traveled roadway with traffic congestion (62%)
- Auto body exposures (42%);
- Occupational exposure from dust (35%), cleaning solvents (26%), fumes (16%);
- Pesticide exposure (31%) from use at home, and on pets;
- Locally caught fish consumption (27%);
- Outdoor swimming 26%
- Lead at home (22.8%);
- Pesticides on fruits and vegetables (12.5%);
- Hobbies, working with art materials (11.3%); and
- Visible mold and mildew (10%).

Results of Environmental Health Exposure Survey by Bowdoin Street Health Center			
Topics	Questionnaire	# of Cases	Percentage
Pesticides	Do have problems with roaches or other pests in your home	36	34.0
	Do you grow yr own fruits or vegetables	16	15.1
	Did u have yr soil tested first before planting	2	1.9
	Do you use pesticides on the fruits and vegetables	3	18.8
	Are pesticides used in your home, on yourself, pet	31	29.2
Fish consumption	Do you eat locally caught fish	27	25.5
	Are these fish you /yr family catch your selves	2	1.9
Radon	Has yr home ever been checked for radon gas	3	2.8
	Were results considered high	No info	No response
Lead	Was yr home built before 1978	69	65.1
	Has yr home been tested for lead	57	53.8
	What were the results	13	22.8
	Have you been tested for lead poisoning	28	26.4
	Was the blood test positive for lead	19	67.9
	Has anyone else in yr family been tested for lead poisoning	58	54.7
	Was the blood test positive for lead	No response	No info
Hobbies	Do you have a home workshop or studio where you work with chem/metals solder, lead	11	10.4
	Paint strippers	7	6.6
	Glues	10	9.4
	Art materials	12	11.3
	Varnishes	2	1.9
	Welding materials	4	3.8
Transportation	Do you live near a heavily traveled roadway with traffic congestion	67	63.3
Auto body Exposures	Any one in the family that repair car?	33	31.1
	Do you notice cars being repaired on yr block by individuals	64	60.4
Outdoor swimming	Do you swim in a natural body of water, other than a swimming pool	28	26.4
Health problems	Heart burn or discomfort in chest	38	56.6
	Trouble breathing	34	35.8
	Aches and pains	59	32.1
	Rash on skin	22	55.7
	Little or no energy	48	20.8
	Infertility	3	45.3
	Tingling or weakness in fingers or toes	28	2.8
	Depressed mood	45	26.4
	Trouble sleeping	41	42.5
	Trouble remembering or paying attention	30	38.7
Health Perception	Are there any local sources of pollution in yr community that might directly impact yr health	60	8.5

Source: Community Environmental Health Exposure History Survey, 2000

AIR QUALITY

Federal regulations require all states to establish an air monitoring network. In Massachusetts, the air assessment branch of the Massachusetts Department of Environmental Protection (MADEP) collects air quality data. 40 publicly funded stations, located in 25 towns and cities, and 6 privately funded industrial sites were monitored for air quality in 2001. Ambient air quality is determined by measuring just six major pollutants -- sulfur dioxide, nitrogen oxides, ozone, particulate matters and lead.³⁰ Other pollutants that exist in the air are not measured or tracked consistently.

There are no air quality monitoring stations in Dorchester, hence research on Dorchester air quality depends on estimating the air quality from data produced by neighboring stations. The closest air monitoring stations are in Roxbury's Dudley Square and in Kenmore Square, near Boston University.

Transportation Pollution: Heavy auto and truck traffic, and the frequency of diesel buses traveling on the streets of Dorchester, represent the main cause of transportational pollution in Dorchester. Public transportation, diesel buses especially, increases polyaromatic hydrocarbons and particulate matter in the air.³¹ In Roxbury, higher concentrations of particulate matter (PM2.5) and Poly Aromatic Hydrocarbons (PAH) in the air during morning rush hours and weekdays a mile around the Dudley bus terminal were observed. Bus routes out of Dudley showed elevated levels of both the compounds. The study showed high concentration of PAH and particulate matter on roads in Roxbury with heavy bus traffic.³²

The majority of Dorchester residents (approximately 62%) feel the pressures of traffic congestion.³³ Despite the presence of 4 MBTA subway stations many bus routes that criss-cross Dorchester, over 60% of Dorchester's population own cars and about 50% drive to work. Less than 10% bike or walk to work in Dorchester.³⁴

Massachusetts Bay Transit Authority (MBTA) bus routes connect Dorchester with Roxbury, Mattapan, and Quincy. MBTA service is operated primarily by large diesel buses. There are three main bus transfer stations and 20 bus routes through Dorchester daily, originating from Ashmont, Fields Corner and from JFK/UMass. Ashmont is the largest transfer station for buses and trains; nine bus routes originate from Ashmont station, four from Fields Corner, and two from JFK/UMass. Buses typically run along

³⁰ Executive Office of Environmental Affairs, Department of Environmental Protection, Bureau of Waste Prevention, and Division of Planning and Evaluation, "Common Wealth of Massachusetts 2000 Air Quality Report," Massachusetts Department of Environmental Protection, 2000 Contact: Bryan Glascock

³¹ Alternatives for Community and Environment, "Comparisons of Average Black Carbon Soot Concentrations in Dudley Square and Harvard School of Public Health," MADEP AIRS database, 2001

³² Levy J, Houseman A, Spengler J, Loh P, and Ryan L, "Fine Particulate Matter and Polycyclic Aromatic Hydrocarbon Concentration Patterns in Roxbury, Massachusetts: A Community Based GIS Analysis," Environmental Health Perspectives, Vol. 109, No. 4, April 2001

³³ Community Environmental Exposure History Survey, 2000

³⁴ City of Boston, and Boston Foundation, "The Wisdom of Our Choices: Boston Indicators of Progress, Change and Sustainability 2000," The Boston Foundation, 2000

major thoroughfares of the neighborhood that were not designed for heavy bus and auto traffic. These narrow streets intersect at congested squares where pedestrians access local businesses, schools, homes and parks.

Two diesel-fueled commuter rail lines traverse the neighborhood heading to suburbs south of the City, and the outer suburbs of Kingston/Plymouth. Only recently did one line create a stop at the University of Massachusetts Boston, creating an access for Dorchester residents to the outer suburbs. Efforts are underway to create additional stops so the community can access train lines where there is currently only bus service.

Industrial Air Pollution: Industrial facilities can cause air pollution through release of chemical pollutants into the air and through accidental toxic spills. Phase I of this environmental profile does not estimate the extent of air pollution through these sources; this may be attempted in Phase II. Further, it is difficult to find air pollution data by neighborhood, as most are documented by city, county or state.

The Environmental Defense Fund Scorecard estimates that 689,807 people in Suffolk County (where Dorchester is located) face an air-cancers-related risk that is more than 100 times the goal set by the Clean Air Act. This is due to exposure to particulate matter and Polycyclic Aromatic Hydrocarbons, 97% from mobile sources, 3.4% from area sources, and 0.0096% from point sources. Suffolk County ranked among the dirtiest/worst 10% of all counties in the U.S. for non-carcinogenic hazardous air pollutants.³⁵

WATER QUALITY

As there are no private wells in use in Dorchester, the quality of ground water will not be covered in this report. We will discuss drinking water quality and the quality of the source surface water bodies such as rivers and beaches in the neighborhood.

Drinking Water: Dorchester gets its drinking water from the Quabbin Reservoir, a high quality unfiltered water source. Water is transferred via the Quabbin aqueduct to the Wachusett reservoir in Clinton, and is sampled at Cosgrove Intake before it is supplied to the Metropolitan Boston systems.³⁶ The Massachusetts Water Resources Authority (MWRA) is committed to protecting the water supply against water contamination and tests the water from the reservoir to the tap. The water is tested for turbidity and algae, microbial pathogens, corrosiveness, disinfectant byproducts and residuals and minerals. Each municipality is responsible for distributing water within its own community. MWRA supplies water for Boston and Dorchester.³⁷

³⁵ Environmental Defense Fund, "Hazardous Air Pollutant Report, Suffolk County Massachusetts," Environmental Scorecard, 2002 www.scorecard.org

³⁶ Massachusetts Water Resources Authority, "Water Quality Update: An Analysis of April 2002 Sampling Data," MWRA, 2002 (Contact Person: Joshua Das)

³⁷ Massachusetts Water Resources Authority, "Reservoir Water Test Results: 2000 Report on your Tap Water," MWRA, 2001

Quabbin Reservoir water has a safe level for turbidity, and is under the Federal EPA standards of 5.0 Nephelometric Turbidity Units (NTU), and the stricter Massachusetts Standard of 1.0 NTU. On an average, turbidity levels were 0.3 NTU, and the highest turbidity level found within the reservoir was 0.95 NTU. To reduce algae, which causes taste and odor problems, MWRA treats water with copper sulfate, which is an algacide.

Up to 252 samples of water in the city and town systems are tested each month for total coliform bacteria, and for a chlorine count. Total coliform counts in the MWRA pipes in Dorchester are under the state and federal standards. No cryptosporidium or giardia was found in weekly samples of water. A low level of viruses was found in only one monthly sample in 2000. But the disinfection system undertaken by the state is equipped to kill viruses and other pathogens. Boston had an average chlorine residual level of 1.44 mg/l. The presence of disinfection by-products, trihalomethanes and haloacetic acids, are another potential concern. Levels of these chemicals are collected quarterly and are below current standards.³⁸

The quality of drinking water is further affected by the water supply infrastructure, which is over 100 years old and contains lead pipes. MWRA water is lead-free when it leaves the reservoirs. However, lead can enter tap water through pipes, lead solder plumbing and certain brass fixtures in the home. Corrosion or wearing away of lead based material can add lead to tap water, especially if water sits for extended periods in the pipes before use. To prevent lead from leaching from household pipes into tap water, MWRA began to reduce corrosivity by raising pH to minimize leaching of lead and copper into tap water from service lines and home plumbing systems.³⁹ In April 2002, 95% of samples taken were within target range.

Surface Water: Dorchester's surface water bodies consist of two main beaches -- Malibu Beach in North Dorchester and Tenean Beach in South Dorchester -- and the Neponset River that runs primarily along southern Dorchester and empties into Tenean Beach. Surface water quality is determined by the swimmability of outdoor waters. The quality of Dorchester's outdoor water is determined by tests conducted at three locations at Tenean Beach.

Bacterial indicators determine whether rivers are safe for swimming and fishing. Currently, none of the beaches in Boston are suitable for swimming at all times. Results of intensive monitoring at Boston harbor beaches from 1996-2000⁴⁰ show that Tenean Beach had the worst records, with more than 10% of the samples exceeding the bacterial count limit. The limits were frequently exceeded during wet weather due to runoff of storm water and discharge of combined sewer overflow pipes. Tenean Beach met the swimming guidelines only 69% of the time, and had poor water quality in general.

³⁸ Ibid

³⁹ Massachusetts Water Resources Authority, "What Should You Know About Your Tap Water: 2000 Drinking Water Test Results" MWRA, 2001

⁴⁰ Massachusetts Water Resources Authority, "Results of Intensive Monitoring at Boston Harbor Beaches, 1996-2000, Environmental Protection Agency, 2000

Tenean Beach is impacted by storm water, the Neponset River, and treated combined sewer overflow. Combined sewer overflows and contaminated storm drains are the main sources of water pollution. Water is disposed of in the Bay after treatment. Sewage treatment plants do not treat toxic chemicals in the sewers before releasing water to the bay; the alternative solution would be to regulate chemical discharge into the sewage system. Households are also an important source of toxic chemicals due to careless dumping of toxic products down household drains.⁴¹ Without using safer alternatives in industries and homes, reducing toxics in the sewer and beaches is difficult.

Dorchester has two sewer separation systems: one in the Neponset section of Dorchester, and one at South Dorchester Bay. This separation project is intended to eliminate Combined Sewer Overflow discharge to South Dorchester Bay and Neponset River by separating combined sewer systems into pipes for sewage and pipes for storm runoff in Dorchester. Separation work primarily involves the construction of new storm drains, relocation of storm runoff connections from the existing combined sewer to the new storm drains, and rehabilitation of the existing combined sewers for use as sanitary sewers. The two sewer systems are being extended through construction of about 150,000 feet of new storm drain pipe.⁴²

In addition to the sewage separation units, there are two conduits in Dorchester-- the Dorchester Brook Conduit and North Dorchester Bay and Reserved Channel Consolidation Conduits in South Boston beaches. These conduits constructed as tunnels would store CSO discharges in most storms, for later pumping to Deer Island. During large storms when CSO flows exceed the storage capacity of the tunnels, the excess flows would be conveyed away from the beaches, treated and pumped into the reserved channel.⁴³

OPEN SPACE

Dorchester is the largest neighborhood in Boston, yet has limited open space compared to other Boston neighborhoods. Dorchester has 6 acres per 1000 people of public open space, compared to 10 acres in Boston overall.⁴⁴ Cleanliness of open space (littering) and safety (poor lighting) were stated as causes for concern by Dorchester residents, according to the 1999 neighborhood survey done in Codman Square and Fields Corner.⁴⁵

There are about 61 community parks and playgrounds in South Dorchester; North Dorchester has 22 parks and playgrounds.⁴⁶ There are 91 recreational facilities in South

⁴¹ Massachusetts Water Resources Authority, "Toxics Reduction and Control," MWRA, 2002

<http://www.mwra.com/sewer/html/trac.htm>

⁴² Massachusetts Water Resources Authority, "Combined Sewer Overflow Control Plan: Annual Progress Report 2001," MWRA, 2002

⁴³ Ibid

⁴⁴ Boston Indicators, 2000

⁴⁵ Codman Square Community survey, 1999 and Fields Corner Community Survey, 1999

⁴⁶ Boston Indicators, 2000

Dorchester and 17 in North Dorchester.⁴⁷ The community survey conducted in Codman Square and Fields Corner in 1999 showed that the majority of the residents (56%) considered the parks to be in good condition. But according to *Boston Indicators of Progress*, cleanliness of Dorchester Parks has been rated lower than the parks in Boston, North End, Charlestown, Brighton, East Boston, South End, Back Bay and Chinatown.

Dorchester also has less tree cover compared to some of the other major neighborhoods. According to the *Boston's Indicators of Progress*, North Dorchester has relatively less tree cover (less than 7%) compared to South Dorchester (15%). The other neighborhoods that have less tree cover than North Dorchester are Central (Downtown Boston), Charlestown, East Boston and South Boston.

RECYCLING

Recycling represents an integral part of environmental protection by minimizing further environmental exploitation. Recycling emphasizes resource conservation, solid waste reduction, energy conservation, and environmental protection.

The City of Boston handles recycling in Dorchester. Yearly, Boston recycles only 13.59% of its household waste, out of a total of 287,000 tons. Bostonians recycle less than residents of other municipalities.⁴⁸

There have been growing efforts to recycle hazardous waste through the Blue Bin Programs, with introduction of paint, motor oil, television and computer recycling keeping the more hazardous materials out of landfills. These are not collected with household trash but there are special places where it can be dropped off for recycling. Recycling centers such as Goodwill and the Salvation Army also contribute to these efforts.

⁴⁷ Harvard School of Public Health, "Play Across Boston: Summary Report," Harvard Prevention Research Center, December 2002

⁴⁸ Boston Indicators, 2000

DORCHESTER: A Community Health Profile

Rather than address every Dorchester health statistic, this Profile draws attention to health issues that may be aggravated by environmental factors. These environmental health issues include asthma, lead poisoning, cancer, lupus, developmental disabilities, and low birth weight. In addition, birth outcomes and mortality rates in the community are documented.

Typically, health data are disseminated at the state, city or county level. Rare instances of Dorchester-specific information lend valuable insight into the status of the neighborhood. The purpose of presenting health data is not to determine causative links. Rather, the aim is to identify priority trends and to provide the information necessary to reduce the environmental factors that could improve health problems in the community.

MORTALITY

The mortality rate in the neighborhood provides a context for our work and reflects baseline health issues of the community. Data on mortality rate and causes of mortality provide an insight into the unusual trends in mortality in some areas and the reasons behind mortality.

In general, mortality rates are higher among Boston’s Black community than among other race groups.⁴⁹ The Health of Boston, 2001 report shows the average mortality rate in Dorchester was 977.4 deaths per 100,000 population -- higher than the 1999 age adjusted mortality rate in Boston of 912.3 deaths per 100,000. Mortality rate in 2000 in North Dorchester was 1030.5 deaths per 100,000 population and South Dorchester had a mortality rate of 924.3 deaths per 100,000 population – both greater than Boston overall.

Age Adjusted Mortality Rate 1999			
Mortality	North Dorchester	South Dorchester	Boston
Mortality Rate deaths per 100,000 Population	1030.5	924.3	912.3
Leading Causes of Death Deaths per 100,000 population	*Cancer (all): 259.8 *Heart Disease: 280.1 *Strokes: 64.4 *All Injuries Combined: 40.9 *COPD: 40.1	*Heart Disease: 230.7 *Cancer (all): 210.5 *All Injuries Combined: 49 *Pneumonia/Influenza: 42.7 *Nephritis/Nephrosis: 35.3	*Heart Disease: 231.8 *Cancer (all): 218.8 *Stroke: 47.8 *COPD: 42.7 *All Injuries Combined: 42.2 *Pneumonia/Influenza: 34.3 *Nephritis/Nephrosis: 24.4

Source: Health of Boston, 2001; COPD: Chronic Obstructive Pulmonary Disease Respiratory diseases.

⁴⁹ Boston Public Health Commission, “Race and Elimination of Health Disparities in the City of Boston: Boston Resident Deaths,” Boston Public Health Commission, June, 2002

BIRTH OUTCOMES

Birth outcomes are influenced by a number of complex factors such as socioeconomic status, access to health care, religious and cultural values, and hazardous chemical exposure. Birth weight, birth defects, abnormal conditions during birth, and infant mortality are information frequently used to investigate impacts of hazardous chemicals on reproduction. Birth defects and infant mortality represent extreme health effects of hazardous exposures. Low birth weight also has been attributed to hazardous exposure.

Infant mortality

Over time, a general decline in the infant mortality rate (IMR) has been achieved for all races/ethnicities, but the IMR for Black infants continues to be substantially higher than for other races/ethnicities. In 2000, for every White infant who died during the first year of life, there were five Black infant deaths in Boston. The IMR for Black infants in Boston was 13.6 infant deaths per 1,000 live births, whereas the IMR for White infants was 2.8 infant deaths per 1,000 live births.⁵⁰ Neighborhood-specific infant mortality rate data are not available; however, Dorchester is predominately a neighborhood of color and likely bears the corresponding high infant mortality rates (see table below).

Birth Outcomes, 1992-1999					
	Birth Rate*		% of Low Birth Weight		Infant Mortality Rate 1992-2000
	1992-95	1996-99	1992-95	1996-99	
Boston	52.3	47.9	8.8	8.9	6.7**
North Dorchester	80	71.4	10.3	9.8	NA
South Dorchester	64.2	62.4	9.9	10.7	NA

* Births per thousand women ages 15-44

** Deaths per live birth, Boston Public Health Commission Research Office, June 2002 (2)

Source: Health of Boston, 2001

Low Birth Weight

An early indicator of the health of infants is birth weight. Infants born at low birth weight (less than 2,500 grams or 5.5 pounds) are at greater risk for physical disabilities, developmental delays, and infant death. Over time, the causes of low birth weight (LBW) appear to be changing. The LBW rate for the United States has steadily increased since the mid-1980s.

LBW can be influenced by racial and social differences. Many more black infants are born very small, about 12.7%, than infants of other groups, White 6.4%, Hispanic 7.9% and Asian 6.7%.⁵¹

Health of Boston 2001 shows that LBW is 10% higher in North Dorchester (9.8%) than in Boston and is 20% higher in South Dorchester (10.7%) than in Boston. The LBW has decreased over the year in North Dorchester but increased in South Dorchester. The

⁵⁰ Ibid

⁵¹ Ibid

decline in LBW in North Dorchester is 4.9%. South Dorchester has the third highest LBW in Boston after Roxbury and Mattapan.

ASTHMA

Asthma is the fastest growing environmental health problem in the United States. Over the past fifteen years, the asthma rate has doubled to an estimated 15 million people, representing approximately a 75% increase in the population with asthma. The percentage of pre-school age children with asthma has increased 160%, bringing it to epidemic proportions in the United States.⁵²

Treatment for asthma includes medical management and environmental control. Medications decrease swelling and mucous production and relax the tightened airway muscles. Environmental control involves identifying and avoiding those things in the environment that trigger asthma.

The exact cause of the increasing rates of asthma is not yet known. Interaction between multiple factors including genetics, stress, and poor indoor and outdoor environmental conditions are believed to play a significant role in increasing asthma rates. Research on asthma reveals that indoor air pollutants such as pets, cockroaches, fungi and molds, cold viruses, house dust mites, environmental tobacco smoke and certain air pollutants contribute to development and worsening of asthma.⁵³ The results of an exploratory study suggest that repeated exposure to particulate matter and other air pollutants from traffic exhaust may aggravate asthmatic symptoms in individuals already diagnosed with asthma, and increase medical visits for asthmatic children.⁵⁴

Asthma affects Americans of all ages, races and ethnic groups; however, low income and minority populations experience substantially higher rates of hospital admissions, emergency room visits, and fatalities due to asthma. Research on 1997-2000 asthma hospitalization rates in Boston in children under 5, revealed that Black children in Boston are hospitalized for asthma at three times the rate of White children. Latino children are hospitalized for asthma at twice the rate of Whites. Homeless children are believed to have up to four times the rates of asthma as children with homes.⁵⁵

Asthma rates in Dorchester

In 2000, Dorchester had Boston's second highest asthma hospitalization rates for males under the age of five. Asthma rates for male children under 5 were 24.8% higher in South Dorchester and 22.9% higher for North Dorchester than the overall rate in Boston. Asthma

⁵² Health of Boston, 2001

⁵³ Institute of Medicine, *Clearing the Air: Asthma and Indoor Air Exposures*, Washington Dc, National Academy Press, 1/2000

⁵⁴ English P. et, al., "Examining Associations between Childhood Asthma and Traffic Flow Using Geographic Information System," *Environmental Health Perspectives*, Vol. 107, No. 9, September 1999

⁵⁵ Boston Public Health Commission Research Office, "Acute case Mix," Massachusetts Division of Health Care Finance and Policy, 1997-2000 (rates are calculated using the US Census 2000 for resident population.

rates for female children below age 5 were 34.2% higher for North Dorchester and 19.7% higher for South Dorchester.⁵⁶

At the sub-neighborhood level, the asthma rate for Codman Square (zip code 02124) is 14.3 children for every 1000 people. This is far greater than the asthma rates in Boston and Massachusetts (4.2 and 2.1 respectively).⁵⁷ In a neighborhood survey conducted in Codman Square and Fields Corner, 13% of respondents had been diagnosed with asthma in Codman Square and 14% in Fields Corner.⁵⁸

CHILDHOOD LEAD POISONING

Lead poisoning is a serious and preventable environmental health problem. Lead poisoning affects the development of a child and can cause speech, hearing, learning and behavioral problems. If left untreated, lead poisoning can permanently damage a child's brain, kidneys, blood and nervous system. Most lead-poisoned children show no symptoms initially, and a blood test is the only way to determine the level of lead in the body.⁵⁹ Many cases are left undiagnosed and untreated due to lack of symptoms in a child with elevated lead levels. Approximately 1 million children in the U.S. have blood lead levels high enough to affect their health adversely. For children, the Center for Disease Control considers levels of 10 micrograms per deciliter (10 ug/dL) or greater to be cause for concern.⁶⁰

Lead exposure can occur from deteriorating paint and dust, food, drinking water, air, and contaminated soil. Currently, however, lead paint that has deteriorated, and contaminated soil and dust in old housing are the major sources of childhood lead exposure.

Blood Lead Levels in Dorchester

The Boston neighborhoods with largest Black populations also have the highest percentages of children with elevated blood lead levels.⁶¹ Blood lead levels continue to be highest in North and South Dorchester, where housing stock is older and with a disproportionate number of families with children live in poverty.

Blood lead level in North Dorchester is 50% higher than the Boston average blood lead levels. And the blood lead level is 37% higher in South Dorchester than the average in Boston.⁶²

⁵⁶ Health of Boston, 2001

⁵⁷ Codman Square and Four Corners Millennium Project Community Blueprint, 2000

⁵⁸ Codman Square Community Survey, 1999 and Fields Corner Community Survey, 1999

⁵⁹ Boston Public Health Commission, "Boston Childhood Lead Poisoning Prevention Program," Environmental Health Program, Boston Public Health Commission, <http://www.bphc.org/OEH/leadhome.htm>

⁶⁰ Health of Boston, 2001

⁶¹ Boston Public Health Commission, "Race and the Elimination of Health Disparities in the City of Boston," Lead Screening Data, Boston Public Health Commission Environmental Health, June 28, 2002.

⁶² Health of Boston, 2001

Health of Boston, 2001 data and Boston Public Health Commission, 2002 data show an increase in blood levels in children. The prevalence of elevated blood lead levels was higher mostly in South Dorchester in 2000, but within a year blood levels in North Dorchester have risen dramatically and North Dorchester now has the highest blood lead levels in all of Boston. Average blood lead levels in North Dorchester in 2001 were 6.9, a 38% increase from 2000. Average blood lead levels in South Dorchester in 2001 were 6.3, a 12.5% increase from 2000. It is unclear if this rise can be attributed to increased surveillance and diagnosis or a real increase in lead poisoning cases.

Many community groups have worked on reducing the lead levels in the community through innovative programs. Lead in soil continues to be an issue of great concern. Some experts suspect that the area had high levels of lead even before it was contaminated. In many parts of the community the lead levels in soil continue to be as high as 1000ppm; the safe lead level in soil is 400ppm.⁶³

Exposure to lead through water supply service lines represents another area of concern. The service line is the portion of the pipe that runs from the main network into an individual home. The City maintains pipes up to property lines. From the property line into the house itself, service lines are the responsibility of the property owner. Many service lines are still held together by lead solder. As water sits in these pipes, its lead content increases. Major sources of lead in drinking water are the lead in water service pipes that connect houses to the water main in the streets, lead based solder used to join water pipes, chrome plated brass faucets and other household plumbing containing lead. Because information provided by the City does not reflect status of service line water, residents are encouraged to take precautions as if their pipes were contaminated. The Massachusetts Water Resources Authority is in the process of replacing the water supply lines in the neighborhood.⁶⁴

CANCER

Cancer is the second leading cause of mortality in the United States. The number of new cancer cases and deaths has declined since the 1990s. Between 1990-1997, the cancer mortality rate declined by 0.8.⁶⁵ Cancer occurs when organ cells divide and proliferate abnormally and attack and damage normal tissues and organs. The abnormal cancer cells, if left untreated, can spread throughout the body. Cancer cells spread locally via the bloodstream or lymphatic system. Cancer is named according to the organ where it originates. Lung, prostate, breast, and colorectal cancer are the leading causes of cancer deaths and account for over half of new cancer cases.⁶⁶ Due to the long latency period of most cancers, it is currently very difficult to link cause and effect. However, scientific

⁶³ Codman Square Health Center, "The Codman Square Lead Poisoning Prevention Initiative," Codman Square 2000

⁶⁴ Massachusetts Water Resources Authority, "Lead in Tap Water" MWRA, 2001

⁶⁵ Boston Public Health Commission, "Health of Boston 2001," Research and Technology Services, Boston, MA 2001

⁶⁶ Ibid

literature includes many experiments tracking the evolution of cancerous cells from an environmental exposure.

Prevention and early screening are ways to diminish cancer deaths. Primary prevention involves identifying and avoiding risk factors, which include cigarette smoke, alcohol consumption, ultraviolet radiation exposure (sun), and occupational exposure to carcinogens, some viruses, poor diet, and physical inactivity.

Blacks have higher cancer mortality rates than Whites. In 1999, the cancer mortality rate in Boston was highest for Blacks, whose rate of 300.8 deaths per 100,000 was 37.5% higher than the rate (218.8 deaths per 100,000) for the city as a whole.⁶⁷ The cancer mortality is higher in Blacks for prostate, breast, and cervical cancer than in Whites. In Boston, the prostate cancer death rate among Black men is 2.5 times that of White men. And 11 of the 19 Boston women who died of cervical cancer in 1999-2000 were Black. Asians had the second highest rate, 16.0% higher than the rate for Boston. Hispanics had the lowest cancer mortality rate, 21.3% lower than the rate for Boston.⁶⁸

Cancer Rates in Dorchester

Health of Boston 2001 statistics show cancer was the leading cause of death in North Dorchester with the third highest cancer rate in Boston. The rates were 18.7% higher than the rates for Boston. Charlestown and South Boston, for which cancer was the second leading cause of death, had the highest age-adjusted cancer mortality rates of all 16 Boston neighborhoods. South Dorchester had cancer rates 3.8% below the over all cancer rates in Boston.

Cancer incidence data showed the leading cancer types in Dorchester as prostate cancer (310 cases), lung cancer (275), breast cancer (253) and colorectal cancer (223). The leading childhood cancers were leukemia, brain/Central Nervous System, kidney, lung, thyroid and bone cancer.⁶⁹ The common childhood cancer types are distinguishably different from the adult cancer types. Except for lung cancer, childhood cancer types showed rare cancer types as the leading cause of death compared to the adult cancer types.

NEUROBEHAVIORAL HEALTH

Neurobehavioral and neuro-psychological problems are very difficult to understand and diagnose. These disabilities result from complex interactions among genetic, environmental, and social factors. Potential contributions from exposures to toxins in the environment deserve special scrutiny since these exposure are ultimately preventable.

Vast quantities of neurotoxic chemicals are released into the environment each year -- about 1.2 billion pounds of registered pesticides, and 500 million pounds of suspected

⁶⁷ Ibid

⁶⁸ Ibid

⁶⁹ Health Massachusetts Cancer Registry, "Cancer incidence data of Dorchester," Massachusetts Department of Public, Data Request: April 18, 2002, Contact: Annie MacMillan

neurotoxic chemicals from industrial products.⁷⁰ The presence of these compounds in our day-to-day lives is underestimated, perhaps because some of the low dose exposures are deemed acceptable. Laboratory clinical and epidemiological work suggest that certain toxic agents such as lead, mercury, poly chlorinated biphenyls (PCBs) and other neurotoxic pesticides and solvents can produce profound and permanent changes in the developing nervous system, causing decreases in mental performance as well as changes in the reproductive system.

The main neurobehavioral diseases of concern due to toxic environmental exposures are learning and behavioral disability, and autism. Neurotoxic symptoms may include problems with memory, concentration, reaction time, sleep, thinking, language, depression, numbness of the hands and feet, confusion, and personality changes.

The incidence of learning disability and autism has increased tremendously over time. It is estimated that nearly 12 million children (17%) in the United States under age 18 suffer from one or more learning, developmental, or behavioral disabilities. There has been a 191% increase in the incidence of learning disabilities from 1977 to 1994, and a 210% increase in autism between 1987 and 1998. The incidence of autism is even estimated to be as high as 2 per 1000.⁷¹ There is no estimate of these neurobehavioral concerns at a local level. Furthermore, there is no registry to record neuro-behavioral and learning disability problems.

Diagnosed cases of neurobehavioral problems in the community are hard to detect. At Codman Square Health Center, 1,351 behavioral health patients were consulted in 2001, including 511 males and 840 females. Twenty one percent of the patients were between 1-14 years. The majority of patients who seek behavioral health treatments are Black (77%), followed by 9% Hispanics, 7% White and 6% others.⁷²

LUPUS

Lupus is an autoimmune disease in which the immune system is out of control and attacks healthy tissues. Lupus can affect many parts of the body, including the joints, skin, kidneys, lungs, heart and brain. Symptoms include fatigue, pain and swelling in the joints, fever, skin rashes, hair loss, kidney problems, chest pain, sun sensitivity, forgetfulness and difficulty concentrating, and fingers paling due to cold or stress. Because of the range of symptoms and organs lupus attacks, it is a difficult disease to diagnose and is often mistaken for other diseases. Also, symptoms may come and go. There is no cure for lupus.

Nine out of ten people who have lupus are women. Lupus is more common in women of color, including Black, Latina, Asian, and American Indian Women . The disease is three

⁷⁰ Schetler, T, et, al., "In Harm's Way: Toxic Threats to Child Development," Greater Boston Physicians for Social Responsibility, May 2000

⁷¹ Schetler, 2000

⁷² Codman Square Health Center, Codman Square Behavior Health Patients statistics, Codman Square Health Center, 2001

times more common – and often life threatening – in Black women. About 1 in 250 Black women have lupus, compared to 1 in 1000 in white women.⁷³

What causes lupus is not known. It is likely that combinations of factors are responsible for lupus, including genetics, hormones and the environment. Residents have long suspected that high rates of automotive and oil facilities are responsible for the high rates of lupus found in Dorchester, Mattapan and Roxbury. There is no lupus registry in Massachusetts, hence it has been difficult to identify the rates in the neighborhood. The MDPH Bureau of Environmental Health Assessment is currently investigating a potential cluster of lupus cases in the city.

⁷³ National Institutes of Arthritis and Musculoskeletal and Skin Diseases, “The Many Shades of Lupus: Information for Multicultural Communities,” National Institute of Health, 2001

APPENDIX #1: List of Open Spaces in North Dorchester

Name of the Park	Park Facilities	Area (acres)	Ownership
Allen Park	None	1.29	Boston Parks and Recreation
Calf Pasture Columbia Pt	None	5	BWSC
Coppens Square	Passive area	0.3	Boston Parks and Recreation
Deer Street Park	Play Eq/Totlot Passive area	0.2	Boston Parks and Recreation
Dorchester North Burying Ground	None	3.27	Boston Parks and Recreation
Downer Ave Playground	Basketball Court Play Eq/Totlot	0.78	Boston Parks and Recreation
Malibu Beach	Play Eq/Totlot Beach	12.6	Metropolitan District Commission MDS
McConnell Park	Softball fields(2) -Play Eq/Totlot -Passive Area -Parking Area	6.3	Boston Parks and Recreation Parks
Meany Park	Play Eq/Totlot	0.22	MDS
Meeting house Hill Overlook	None	2.82	BPS
Miranda Plyaground – Belden St. Totlot	Play Eq/Totlot	0.2	Boston Parks and Recreation Parks
Monadnock St. Garden	None	0	BNAF
Mullen Square	Passive Area	0.24	Boston Parks and Recreation
Nonquit St. Garden	None	0.36	DGP
Old Harbor Park	None	11.5	Commonwealth
Quincy/Stanley Play Area	Basketball Court Play Eq/Totlot Passive Area	0.38	Boston Parks and Recreation
Richardson Square	None	1.06	MDS
Ryan Play Area	Basketball Courts(1.5) Play Eq/Totlot	0.64	Boston Parks and Recreation
Savin Hill Beach	Play Eq/Totlot Beach	4.2	MDS
Savin Hill Park	Tennis Courts(4) Play Eq/Totlot Passive Area	8.2	Boston Parks and Recreation
The Humps	None	0.76	Private
UMass Boston Athletic Fields	None	23	Commonwealth

Appendix #2: List of Open Spaces in South Dorchester

Name of the Park	Park Facilities	Area (acres)	Ownership
10 Josephine St. Garden	None	0.08	BUG
29 Josephine St. Garden	None	0.07	BUG
32 Bullard St. Garden	None	0.1	BNAF
33 Bullard Street Garden	None	0.1	BNAF
Adams Rock	None	0.35	Private
Adams/King Playground	None	0.67	City of Boston
Barry Street Garden	None	0.09	BUG
Boston Gas Co Easement	None	3.2	Private
Byrne Plyground	Basketball Courts(1.5) Tennis Court Play Eq/Totlot Passive Area	1.16	Boston Parks and Recreation
Cedar Grove Cemetery	None	50	Private
Centervale Park	None	0.22	Boston Parks and Recreation
Clayborne St. Garden	None	0.08	DGP
Codman Burying Ground	None	2.6	Boston Parks and Recreation
Codman Square	None	0.21	City of Boston
Conley & Tenean St Park	None	0.5	MDS
Corbett Park -Mothers Rest	Basketball Court Play Eq/Totlot	0.94	Boston Parks and Recreation
Cronin/Wainwright Park	Little League Fd Basketball Court St Hockey Rink Play Eq/Totlot	2.24	Boston Parks and Recreation
Doherty/Gibson Playground	Baseball Field Softball Field Basketball Courts(2) Play Eq/Totlot	5.86	Boston Parks and Recreation
Dorchester Park	Baseball Field Little League Field Basketball Court Tennis Court Play Eq/Totlot Passive area	28.45	Boston Parks and Recreation
Dorchester South Burying Ground	None	2.19	Boston Parks and Recreation
Eldon St. Urban Wild	None	1.75	City of Boston
Fannie Lou Hamer Farm	None	0.42	DGP
Florida Street Reservation	None	0.56	Boston Parks and Recreation

Name of the Park	Park Facilities	Area (acres)	Ownership
Gallivan Boulevard	None	0.48	MDS
Garvey Playground	Baseball Field Basketball Court Play Eq/Totlot	5.33	Boston Parks and Recreation
Geneva Ave. Cliffs	None	1.88	Private
Granite Ave. Ledge	None	0.23	Private
Hecla Street CG	None	0.09	City of Boston
Hemenway Playground	Softball Fds(2) Football/ Lacrosse Rugby Field Basketball Court Play Eq/Totlot Passive Area	4.4	Boston Parks and Recreation Parks
Keystone Shoreline	None	0.55	Private
Leroy Street Garden	None	0.1	DND
Levant Street CG	None	0.3	DND
Log School Garden	None	0.1	City of Boston
Martin/Hilltop Playground	Basketball Court Play Eq/Totlot Passive Area	4.32	Boston Parks and Recreation
McMorrow Playground	Little League Fd Basketball Court Play Eq/Totlot	3.57	Metropolitan District Commission
Msgr. Lydon Way Garden	None	0.19	City of Boston
Mt. Bowdoin Green	Play Eq/Totlot	0.5	City of Boston
Neponset Rvr Reservation	None	152	MDS
Nightingale CG	None	0.9	City of Boston
Norton St. Playground	None	0.06	Boston Parks and Recreation
Norton/Inwood Garden	None	0.07	City of Boston
Norton/Stonehurst Garden	None	0.08	City of Boston
Old Colony Yacht Club	None	1.6	Private
Penn Central Easement/R.O.W. Shores	None	3.3	MBTA
Port Norfolk Park	None	0.12	Boston Parks and Recreation
Quincy/Coleman CG	None	0.3	DGP
Ripley Playground	Basketball Court Tennis Courts(2) Play Eq/Totlot Passive Area Open Shelter	0.86	Boston Parks and Recreation Parks

Name of the Park	Park Facilities	Area (acres)	Ownership
Roberts Playground	Baseball Field Softball Fds(2) Football/Lacross /Rugby Field Basketball Ct(2) Tennis Court Play Eq/Ttlot(2) Passive Area	10.2	Boston Parks and Recreation
Ronan Park	Baseball Field Softball Fds(2) Football/Lacross /Rugby Field Basketball Ct(3) Tennis Court Play Eq/Ttlot(2) Passive Area	11.65	Boston Parks and Recreation
Spencer St. Garden	None	0.1	BNAF
Tenean Beach	Tennis Court Play Eq/Totlot	8	Metropolitan District Commission
Toohig Playground	Softball Field Basketball Court Play Eq/Totlot	2.2	Metropolitan District Commission
Torrey St. Park Garden	None	0.07	BUG
Ventura Playground	Play Eq/Totlot	1.3	MDS
Victory Rd. Park	None	19.07	MDS
Vinson/Geneva Garden	None	0.05	DGP
Walsh Playground	Softball Fds(2) Basketball Court Tennis Court Street Hockey Play Eq/Totlot Passive Area	6.97	Boston Parks and Recreation
Wellesley Park	Passive Area	0.66	Boston Parks and Recreation
Westville St. Garden	None	0.25	BRA
Wheatland Ave. Victory Garden	None	0.17	BNAF
YMCA Community Garden	None	1.6	Private

Appendix # 3: Facilities Regulated by EPA in Dorchester

Facility Name	Address	City	Zip code	Notes	Chemical Type	Medium	Specific Contaminant	Amount Spilled	Notification-Compliance date
AB&W Inc	157 Washington St	Boston	02121	Small quantity Generator					
Atlas Eng Co Inc	10 Cheney St	Boston	02121	Large Quantity Generator					
Blue Hill Cleaners	1110 Blue Hill Ave	Dorchester	02121						
Columbus Auto body Inc	267 Washington St	Dorchester	02121	ISQG					
Franklin Park SVC STA	760 Blue Hill Ave	Dorchester	02121		Oil				10/93-3/95
Hospital Laundry Assoc HLA	1 Hoyt St	Dorchester	02121						
Moses Garage & SVC Ctr	58 Geneva Ave	Dorchester	02121	ISMQ					
Smith E J Trucking Inc	259 Quincy St	Dorchester	02121	Haz Waste Transporter					1/90-4/96
Sunrise Auto body	24 Harvard Ave	Dorchester	02121						
Walnut deluxe cleaners & tailors inc	700 Blue Hill Ave	Boston	02121						
Webster Eng Co Inc	50-70 Ceylon St	Dorchester	02121						
AFMC Inc/Brinks Inc	500 Neponset Ave	Boston	02122		Waste Oil	Land, Water		1 Gal	12/86-1/98
AW Perry Inc	77 Franklin St	Boston	02122						
ACE Auto body	35 Tenean St	Dorchester	02122	CESQG Violations: 3					
Adams St Auto Inc	326 Adams St	Boston	02122						
Adams St Shell	761 Adams St	Dorchester	02122		Oil				1995-1996 10/90-8/97
American Dental Casting Inc	10 Minot St	Boston	02122						
American Discount Auto Parts Auto zone Basement	756 Gallivan Blvd	Dorchester	02122		Petroleum				2/98-5/98
Arborway Metal Finishing	50 Park St	Dorchester	02122	LQG G: 33375 M: 33375					
Atlantic Auto Sales & svc ctr	1676 Dorchester Ave	Boston	02122	02122 sulphuric acid NAOH					
Boston Gas Commercial Pl	220 Victory Rd	Boston	02122						

Boston Metal Finishing Inc	35 Freeport Way	Dorchester	02122	SQ	Violations: 9				
Boston Public School	9 Peacedale Rd	Dorchester	02122						4/94-5/95
Brilliant Tire Corp	465 Neponset Ave	Boston	02122						
Brinks Inc	500 Neponset Ave	Dorchester	02122	CESQ					
Charles Hayden Goodwill Inn School	21 Queen St	Dorchester	02122					Oil	5/94-3/99
Charles st Superfund Site	46 Charles St	Boston	02122						
Chevy Autobody Inc	82 Christopher St	Boston	02122						
Child Safe Deleading Co Inc	393 Geneva Ave	Dorchester	02122						
Commercial Point Lang Plant	220 Victory Rd	Dorchester	02122	P	previous NPL	Closed		Oil/Haz Material	10/95-12/957/97-4/01
Cramins Thomas	571 Ashmont St	Dorchester	02122				Land	Oil	15 Gal
Cutter D J & Co Inc	88 Freeport St	Dorchester	02122					Oil	9/98-9/00
Donovans Svc Sta Inc	321 Adams St	Boston	02122						
Dorchester	Town of Dorchester	Boston	02122						
Dorchester Youth Alternative School	1514 Dorchester Ave	Dorchester	02122						
Dorey Fuel Co	279 Norfolk Ave	Dorchester	02122				Land	Oil	1 OTH
Executive Cleaners	514 Geneva Ave	Boston	02122						
Expressway Motors Inc	650-700 Morrissey blvd	Dorchester	02122						
Exxon Co USA 35793	719 Gallivan Blvd	Dorchester	02122						10/90-12/90
Freeport St Liquidator	Freeport St	Dorchester	02122	P	previous NPL			Haz Material	2/99-2/00
Gardner St Landfill	Gardner St	Dorchester	02122	P	previous NPL				
Glynn Joe Cleaners Inc	746 Adams St	Boston	02122	SQ					
Lennox Cleaners Inc	1491 Dorchester Ave	Boston	02122						
Log School	222 Bowdoin St	Dorchester	02122						
Louies Auto Svc Ctr	1311 Dorchester Ave	Dorchester	02122					Oil	5/98-5/99
Lyons George E Jr Inc	40 Sturtevant St	Dorchester	02122	SQ					
MBTA Dorchester Bus & Train	Tenean St end of Dead End St	Dorchester	02122						
Macco Auto Painting & Body Works	1030 Morrissey Blvd	Dorchester	02122	SQ					
Macdonalds & Evans Inc	69 Tenean St	Boston	02122						
Martin Luther King School	77 Lawrence Ave	Dorchester	02122						

Company Name	Address	City	Zip	Material	Quantity	Release Date	Notes
Mass National Guard Maint Shop (US Army)	70 Victory Rd National Armory	Dorchester	02122	Oil/Haz Material	25 Gal	7/97-1/01 1996-2000	
Moore's Auto Parts	87 Part St	Dorchester	02122				Discharge without permission
Motorland Inc	90 Freeport St	Boston	02122				
My Bread Baking Co	60 Tenean St	Boston	02122				
Neponset Circle Autobody Inc	25 Hallett St	Boston	02122				
New England Telephone Co NYNEX	175 Adams St	Dorchester	02122	Oil		5/94-10/94	
New England Telephone Co	80 Neponset Ave	Dorchester	02122	Oil/Haz Material		7/93-7/00 11/99-7/00	
Pals Autobody & Repair Inc	379 Bowdoin St	Dorchester	02122				
Peters Autobody Inc	15 Freeport Way	Boston	02122				
Pollak Joseph Corp	195 Freeport St	Boston	02122				
Port Norfolk Condominiums	161 Walnut St	Boston	02122				
Renner Tool & Supply Inc	305 Freeport St	Boston	02122				
Richardi Automotive Co Inc	61 Tenean St	Dorchester	02122				
Rigney & Moriarty	730 Morrissey Blvd	Dorchester	02122	Oil/Haz Material		7/98-8/99	
Royal Label Co Inc	80 Freeport St	Dorchester	02122				
Royal Label Co Inc	50 Park St	Dorchester	02122				
Seragen Inc Industrial Property	54 Clayton St	Boston	02122			10/93-8/97	
Steinbachs Service Sta	321 Adams St	Boston	02122				
Suffolk Ser Inc/Shaffer Property	75-77, 79-89, 95, 105 Taylor St & 7 Water St	Boston	02122	Oil/Hazardous Material		7/96-6/97	
Sunoco Service Station	710 Gallivan Blvd	Dorchester	02122			1/92-8/97	
Tech Lube Ctr Inc	316 Adams St	Dorchester	02122				
Texaco Svc Sta	1154 WM T Morrissey Blvd	Dorchester	02122	Oil		9/97-8/98 10/92-10/98	SQG Violations: 9 G: 11.83 S: 11.83 Benzene, Ignitable Waste
Toms Auto Body Inc Five Corners Auto Body	1291 Dorchester Ave	Boston	02122	Petroleum			
Vans Auto Body	111 Freeport St	Boston	02122				

Westminster Dodge Inc	720 W T Morrissey Blvd	Boston	02122									11/95-11/96 4/95-4/96
Banner Publications Inc	925 Washington St	Boston	02124									
Blue Hill Foreign Auto Inc	10 Old Rd	Boston	02124									
Boston Mental Health Foundation Inc Dept of Youth Services	591 Morton St	Boston	02124									4/94-7/98 12/01-12/01
Brush Hill Trans Co	109 Norfolk St/ 170R Granite 62R Hilltop	Boston	02124									4/02-4/02
Carney Hospital Clinical Lab	2100 Dorchester Ave	Boston	02124									
City Cleaners	1158 Blue Hill Ave	Boston	02124									
Codman Square	6 Norfolk St	Dorchester	02124	Oil								
Codman Sq Cleaners	563 Washington St	Dorchester	02124									
Constitution Beach Treatment	Sharp St	Boston	02124	Civil Case: Pretreatment								
Davis Tire & Battery	191 Talbot Ave	Boston	02124									
Devine Robert M Rink	Neponset Cir Morrissey Blvd	Dorchester	02124	SQG								
Dorchester Record Pub Co	1220 Adams St	Boston	02124									
Eastover Transportation Co	919 Washington St	Dorchester	02124									
Finest Oil	14 Mallin Rd	Dorchester	02124									
Fitzpatrick Bros Corp	150 Centre	Boston	02124									
Foreign Auto Doctor	610R Gallivan Blvd	Boston	02124									
Freeport St Liquidator Manufacturing Gas Plant FMR	Freeport St	Dorchester	02124									1/92-8/97
G&G Auto Center Garcias	528 Washington St	Dorchester	02124									10/93-5/01
Hicks Autobody Inc	10 Talbot Ave	Dorchester	02124									
Hoffman Bldg	160 N. Washington St	Boston	02124									
Jack Fenelus	95 Dakota St	Dorchester	02124	Household Tank Leak								
Jet a Way Disposal Inc	32 W Tremlett St	Boston	02124									
Joseph Lee Elementary	155 Talbor Ave	Dorchester	02124									

K&J Auto Body	852 Rear Blue Hill Ave	Dorchester	02124	\$SQG						
Lower Mills Auto Body	1158 Adams St	Dorchester	02124							
Martys Auto Body Inc	305-319 Talbot Ave	Dorchester	02124						25 mg/kg 0.8 mg/kg 2760 mg/kg 18000mg/kg 0.8 mg/kg 5600 mg/kg	09/96-00
Mobil Oil Corp	10 Granite Ave	Dorchester	02124					Oil		7/99-8/00
Mobil Oil Corp	783 Blue Hill Ave	Dorchester	02124					Oil/Petroleum	Gasoline	10/96-10/97 1999-2000
Moona Auto Body Inc	1850 Dorchester Ave	Dorchester	02124							
Mufflerman	624 Gallivan Blvd	Dorchester	02124							
Neponset Lincoln Mercury Inc	40 Hallett St	Boston	02124					Haz Material		10/97-10/98
Norfolk Auto Body Repair Shop Inc	360 Norfolk St	Dorchester	02124	\$SQG						
Peabody Cleaners Inc	1767 Dorchester Ave	Dorchester	02124					Oil/Haz Material		12/93-1/95 10/96-10/97
Sasco Corp	790 Washington St	Boston	02124							
Savem Products Co	9 Ansel Rd	Boston	02124							
Sister Clara Muhammed School	150 Magnolia	Dorchester	02124							
Sunco Service Station	710 Gallivan Blvd	Dorchester	02124							
Sunco Service Station	976 Washington St	Dorchester	02124	G: 3.10, S: 2.47				Oil		10/91-12/96 8/98-8/99
Tonys Auto Repair Inc	646 Washington St	Dorchester	02124							
Vins Cleaners	443 Washington St	Boston	02124							
Warrrens Offset Printing Corp	88 Welles Ave	Boston	02124							
131 E Cottage St	131 E Cottage St	Dorchester	02125					Non-Oil		
Agar Supply Co	1100 Massachusetts Ave	Boston	02125							
BIW Cable Systems Inc	65 Bay St	Boston	02125					Haz Material		1/87-3/99 8/96-3/99
Boston College High Sch	150 Morrissy Blvd	Boston	02125							
Boston Edison Operations Centre Beco Service Center	1165 Massachusetts Ave	Boston	02125	G: 420.73 S: 420.73 Pb, KaOH, Benzene				Oil/Haz Material		3/98-3/99 1/93-6/01
Boston Fuel Injection	1190 Massachusetts Ave	Boston	02125							

Boston Public Facilities Hancock St Municipal Bldg	170 Hancock St Bowdoin St	Dorchester	02125		Petroleum/haz material		Petroleum hydro Lead PAH	1400 mg/kg 2500 ug/g 24.3 ppm	7/93-5/96 12/94-2/98 5/98-9/98 09/2001
Carlton Cleaners	737 Dudley St	Boston	02125						
Centre Motor Svc	256 Hancock St	Boston	02125						
Colonial Provision	1100 Mass Ave	Boston	02125						
Continental Auto Body	1176 Mass Ave	Boston	02125						
Daloz Cleanser	11-13 Humphreys St	Boston	02125		Oil				11/98-11/97 10/01-10/01 12/01-12/01
DBA Lennox Junk Co	1170 Mass Ave	Dorchester	02125		Haz Materials	Land G Water	Battery Acid	1 UNK	
Di An Controls Inc	944 Dorchester Ave	Boston	02125						
Dynagraf Inc/Boston Edison	55 Morrissey Blvd	Dorchester	02125	SGQ	leaking Oil	land water, facility	transformer fluid	7 gal	10/96-3/97
Falvey Finishing Co Inc	111 Boston St	Boston	02125	SGQ					
Helmond Joseph C Inc	79 Clapp St	Dorchester	02125						
Johns Auto Body	1234 Dorchester Ave	Dorchester	02125						
Kmart	7 All state Rd	Boston	02125						
Little House Alternative School	275 E Cottage St	Dorchester	02125						
MA Motor Svc Inc	209 Boston St	Boston	02125						
Mile Road Landfill	Columbia Point	Dorchester	02125	Previous NPL					1/87-8/95
Modern Die & Machine Eastern Steel Rack Co	166 Pleasant St	Boston	02125						
National School Bus Svc Inc	30 W Howell St	Dorchester	02125	SGQ	Oil		Petroleum		1/93-12/00
New England Telephone Co	15 Enterprise St	Dorchester	02125						
New England Telephone Garage	173 Boston	Dorchester	02125						
Olde Bostonian	155 Buttonwood St	Boston	02125						
Russel James Engineering Works	9 Dewar St	Boston	02125						
Saf Lok Scaffolding	59 Enterprise St	Dorchester	02125						
Saint Margarets Hospital	90 Cushing Ave	Dorchester	02125	SGQ	Oil				1/96-3/96
Sears Logistics Serv	100 Allstate Rd	Boston	02125						
Servolift Eastern Corp	266 Hancock St	Boston	02125	G: 321.32 S: 175.37 M: 145.95, 6 lbs					
Signal Delivery Svc Inc	103 Allstate Rd	Dorchester	02125						

RESOURCES

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