

**ASTHMA IN THE SCHOOL:
A LOOK AT NEW YORK CITY**

Natasha Johnson, Everett Intern
Advocates For Children of N.Y., Inc.
Supervisor: Sonia Mendez-Castro,
Supervising Attorney
Summer, 1998

TABLE OF CONTENTS

Introduction	page 1
Causes of Asthma	page 2
School Environment	page 2
Biological link/Hereditiy	page 2
Undiagnosed/Misdiagnosed Cases	page 3
Prevalence of Asthma	page 5
Responses to Asthma	page 6
Open Airways	page 6
Training	page 6
Healthy Schools	page 7
504 Registration	page 8
Asthma Surveys	page 9
East Harlem School Asthma Prevalence Survey	page 9
Upper West Side Asthma Survey	page 10
Analysis	page 10
Conclusion	page 11
Addendum	pages 2-4-2-15
Endnotes	page 2-16

INTRODUCTION:

Asthma is currently becoming one of the most dangerous diseases facing school-aged children in New York City (NYC). More than 10% of NYC's 1 million students, nearly 130,000, suffer from asthma. Until a decade ago, NYC's Board of Education (BOE) and other administrations lacked interest in asthma and its severity among children in the public school system, particularly children of color. Such disinterest is of eminent danger when children of color are most at risk for contracting asthma. In fact, Latino/a students face the greatest chance, 11.2%, of getting asthma, while African-American students contract the disease at a rate of 6.1%.¹ Moreover, children of color are dying at an increasingly rapid rate from asthma and asthma-related causes. At the last official report in 1995, deaths attributed to asthma increased 50% since 1980.² If the asthma mortality rate is consistent, the tally is estimated at 320 deaths a year, not including the undiagnosed and unreported cases.

Asthma definitely makes an impact in communities of color, hospitals, and now in neighboring schools. On average, one child is hospitalized somewhere in the city every 35 minutes, a rate of 15,000 admissions a year.³ This report was written in response to the epidemic currently plaguing NYC school-aged children and the effect it is having on the school system. The goal is to increase parent and school awareness. The following pages hope to uncover and combat some prevailing problems in NYC Public Schools with regards to asthma. In addition, the report discusses the prevalence of asthma and make a comparative analysis in NYC target areas. Lastly and most importantly, the succeeding report was conducted with the intention of keeping school administrations, parents, and students of NYC abreast of recent asthma-related events in hopes of curbing future asthma attacks and asthma related deaths.

CAUSES OF ASTHMA:

Experts have denoted several universal triggers for asthma: dust mites, animal fur, insects, mold, and unsuitable temperatures (extremely hot/extremely cold). However, it deserves mentioning that asthma is a very individual disease and each asthmatic's attack can be sparked by very unique triggers. Children of color are the most susceptible to all of asthma's triggers because they are more likely to reside in poorer communities and to attend nearby schools, where such triggers are common. In light of this, the environment and the condition of the school become incredibly important.

SCHOOL ENVIRONMENT:

Several schools are long overdue for repairs, some are nearly 100 years old, while other schools are undergoing prolonged periods of construction. Both environments are hazardous to the health of an asthmatic student because students become exposed to large amounts of dust, paint fumes, and other unknown allergens. Too many schools have aging plumbing systems that create water leaks which attract roaches, an asthma trigger. Research provided by the New York Healthy Schools Network (NYHSN) indicates that federal and state surveys demonstrate that one-third of all our schools need new roofs, 37% have ventilation problems, 24% have indoor air pollution, and one-fifth have outdated wiring and heating systems.⁴

BIOLOGICAL LINK/HEREDITY:

Scientists contend that a biological breakthrough has occurred and evidence exists of an asthma-susceptibility gene linkage to six previously unreported chromosomal regions. The

research was supported by findings from the National Heart, Lung, and Blood Institute (NHBLI). Researchers previously found linkage in five other regions thought to be connected to asthma-associated traits like bronchial hyperresponsivity and allergic sensitivity. Out of the 11 chromosomal regions identified, 10 were unique to only one racial and ethnic group, implying that asthma-susceptibility genes may vary by race and ethnicity. The study brings scientists one step closer to identifying all of the genes that contribute to asthma. Furthermore, it starts to provide an explanation for the disproportionate prevalence of asthma in communities that are predominately of color versus communities that are not. For a complete look at the study that was conducted obtain a copy of the April issue of *Nature Genetics*.

If there is a family history of asthma, a young child can be very susceptible to the disease. The predisposition of asthma seems to be inherited in some cases. Children whose parents or siblings have asthma are more likely to become asthmatics themselves. Atopy (at'o-pe), an inherited tendency to develop allergies (but not one specific form) could also be the source of a young person's asthma. In other words, a child and a parent may be allergic to something, but not the same substance. Atopy causes the body to respond to environmental allergens by producing immunoglobulin E (IgE) antibodies. Children with asthma tend to have specific IgE antibodies that non-asthmatic children may not develop.

UNDIAGNOSED/MISDIAGNOSED CASES:

There remains a large community of young people that may or may not experience asthmatic symptoms and their asthma goes unnoticed and undiagnosed. One can only estimate the actual number of asthmatic children in NYC, but most asthma cases never make it to hospitals. The actual tally of asthmatics is also inaccurate because doctors are not required to report cases to the

Health Department, which would help track asthma's prevalence. Some people go several months without any noticeable symptoms of the disease while their lungs inflame and shut down without warning. Furthermore, others never see a doctor because of a lack of adequate funds to pay for medical bills and doctor visits. In both instances, the intervention of a doctor may have eliminated a degree of suffocating days and nights for children throughout the city. Many others may have sought medical attention if they were aware of asthma's symptoms. Some symptoms to be aware of are an increased shortness of breath, excessive coughing/wheezing, and the contraction of asthma-related diseases like bronchitis, particularly because many students are misdiagnosed. Many young children are told they have bronchitis, while actually their asthma goes untreated. In addition, some children's asthma goes into remission for years and because symptoms may not surface, treatments are discontinued and permanent lung damage may result.

PREVALENCE OF ASTHMA:

Asthma's wrath extends throughout NYC, yet many still doubt it's significance. Asthma is now the largest cause of absenteeism. Lessons are falling behind because teachers must reteach lectures to students that have missed school due to asthma.

S.U.R.R. SCHOOLS:

Schools under registration review (SURR) are schools that are put on notice by the NY State Education Department for low-performing marks, including graduation rates and reading and math scores. SURR schools have a period of three school years to meet requirements, but if schools fail to meet standards the school is either closed or redesigned. Most SURR schools are situated throughout the poorest neighborhoods in NYC, which tend to be communities of color. The New York University (NYU) Institute for Education and Social Policy discusses the correlation between SURR schools and asthma hospitalizations in NYC. Students in SURR schools serve a disproportionate share of students with compromised health. As of 1995, 55 SURR schools, or 63%, had school-based health clinics.⁵ A SURR school, where the children served are at the greatest risk, must be the first school to receive school-based clinics that help control asthma. A map of asthma hospitalizations at SURR schools is provided, see map 2-4. Note that some schools have had more than 300 cases. The map in figure 2-5 is included to show the SURR schools in NYC by district and type of school.

RESPONSES TO ASTHMA:

Asthma is a controllable disease and asthmatics can live healthy and normal lives if the disease is managed properly. Within the past 10 years the Board of Education (BOE) and several other organizations have taken an initiative and devised several programs to respond to the increase of asthmatic students in NYC.

OPEN AIRWAYS:

Open Airways is a citywide program created in 1988 through a partnership with the NYC BOE and the American Lung Association (ALA) that teaches asthma education to students ages 8-11 as part of their regular school day. This past school year the program was implemented in 571 of NYC's 594 public elementary schools, with the intent of being in every public NYC elementary school in September. Students attend 6 group lessons taught by a school nurse. Each lesson lasts 40 minutes and encompasses games, role playing, and stories that help children learn what causes asthma attacks and how to manage them. The program caters to students in elementary schools with the hopes of creating young and independent students that can manage their asthma healthcare well into adulthood.

For more information on *Open Airways*, please contact The American Lung Association at 718-624-8531 or 212-889-3370.

TRAINING:

Until recently many BOE school nurses and most BOE teachers were untrained in asthma healthcare management. To date, 600 Department of Health nurses have received the *Open Airways for School* training with the hope of the remaining nurses to receive training this school

year. ALA is also starting a pilot program in all of NYC school districts declaring “Family Asthma Days”, where family members and students can partake in asthma care awareness. This November, the ALA begins inservice meetings with teachers to assist with their asthma training. In addition, this summer meetings began at the Division of Student Support Services to implement fall training programs for teachers. The training is an attempt to reduce the amount of asthma attacks that occur in classrooms and provide teacher’s with the ability to detect the symptoms of an attack. Due to the time of this report’s release, information on the dates of the training, how the program will function, and what teachers would receive training first were unavailable.

For more information on asthma training for teachers, contact the Division for Student Support Services at 718- 935-4042. For information on asthma training for school nurses, contact the American Lung Association,718-624-8531 or 212-315-8849.

HEALTHY SCHOOLS:

Every school should adopt the NYHSN’s Bill of Environmental Rights (adopted by New York State Board of Regents, 1994) which has a three-bullet plan:

- Every child and school employee has a right to an environmentally safe and healthy learning environment which is clean and in good repair.
- Every child, parent and school employee has a “right to know” about environmental health and safety issues and hazards in their school environment.
- Schools should serve as role models for environmentally responsible behavior.

Established in 1994, the NYHSN is dedicated to making sure that all NYC public schools are up to par. In an effort to ensure that schools are at a functional level, NYHSN has information on school’s use of pesticides, coal boilers, school renovation, school indoor air quality, and a host of

other topics that directly affect children with asthma. Research by the NYU Medical Center reports that stricter ozone policies and better indoor air quality could prevent some 500 asthma hospitalizations, 180,000 attacks, and 75 deaths a year.⁶ Most importantly, NYHSN has created a Healthy Schools Survey Checklist that parents and school personnel can use to make sure that schools are functional. A copy of this survey is enclosed in the addendum, 2-6.

For more information on NYHSN and their resources, contact 518-462-5527..

504 REGISTRATION:

The 1973 Rehabilitation Act, Section 504, protects the rights of students with disabilities. Asthma is defined as a disability under Section 504 and it states that students with asthma are allowed to bring their medication to school, self-administer it, and may be entitled to free medical services. Section 504 is a nine page form that, once filed, will go on a student's academic files to notify school personnel of an illness. Only 3, 400 of the 130,000 students with asthma in NYC are on file. The importance of filling out a request form for Section 504 can not be urged enough, for if no one knows that a student has asthma, no one can assist a student with asthma. In addition, to having Section 504 on file, students should also have an individual asthma action plan on file at school. The New York City Childhood Asthma Initiative (NYCAI) has created a model asthma action plan, a comprehensive list that includes emergency contact and medical information. Every student should have an asthma action plan on their person, on file at school, and at home in case of emergencies. A copy of an asthma action plan is enclosed in the addendum, 2-7.

For more information on Section 504, contact the Office of Related Services at 718-935-3581.

For information on the New York City Childhood Asthma Initiative, contact 212-788-4920.

ASTHMA SURVEYS

In another effort to respond to the increase in asthma and asthma-related incidents, several surveys have been conducted in an attempt to learn more about asthma, the causes, the prevalence, and any possible cures. What follows is a comparative analysis of surveys conducted in East Harlem and on the upper West Side of Manhattan.

EAST HARLEM SCHOOL ASTHMA PREVALENCE SURVEY:

The East Harlem survey was conducted between the dates of May, 19- June, 6, 1997. It was a collaborative study conducted among several organizations including the Department of Health, Columbia University, Mount Sinai Pediatric Department, and the East Harlem Health Committee. The survey participants were students from two elementary schools in East Harlem, one with a comprehensive health program and the other without such a program. Students were asked to take their surveys (sealed in envelopes) home to their parents to complete. Upon receipt of the survey, students were given a T-shirt and certain classes received financial rewards to be used toward classroom materials. In total, usable questionnaires were received by 1, 319 students from both schools.

Results from the East Harlem survey show that 23% of the student population had symptoms and were diagnosed with asthma, 9% were diagnosed with asthma but exhibited no symptoms, and 5% exhibited symptoms of asthma. Of the students that were diagnosed and symptomatic, 30% were Puerto Rican and 20% were African-American and 26% were males compared to the 20% that were females.⁷ Other important results indicate that 71% of the diagnosed and symptomatic students in the school with the health program had emergency room (ER) visits, while 67% of the same students in the school without the health program had ER visits. On average, about

40% of these students in both schools stopped participating in sports because of the severity of their disease. A copy of the East Harlem School Asthma Prevalence Survey appears in the addendum, pages 2-8 thru 2-12.

UPPER WEST SIDE ASTHMA SURVEY:

The Upper West Side asthma survey was conducted at Columbus Academy, a junior high school, located at 77th Street and Amsterdam Avenue, by Advocates for Children of New York, Inc. The survey was administered over a one month period, May, 26-June, 26, 1998 for students, grades 6-8, to complete in class. Total usable responses were received from 53 students.

The outcome of the survey indicates that nearly 10% of the students were diagnosed with asthma. Of the students that were not diagnosed with asthma, almost another 10% stated that they had related diseases, particularly bronchitis. Among the asthmatic students, 8% have medication, but only 6% of them have their condition acknowledged by their school and the school nurse only has medication for 1.8% of the asthmatic students. Most surprising, was that no asthmatic student was informed about Section 504. Practically the entire pool of students, 81% notice insects in school, while 74% say that the school has unsuitable temperatures, and 20% state that the school is in poor physical condition. A copy of the survey and tallies is available in the addendum, pages 2-13 thru 2-15.

ANALYSIS:

The surveys yielded quite different responses, yet took a similar approach, to survey a particular community for an indication of a citywide epidemic. The East Harlem survey gathered a much larger pool of participants and provides a more detailed analysis of asthma in the home.

However, the Upper West Side survey focused more on the actual impact the school may be having on a student's asthma and what schools were actually doing to respond. Overall, both surveys report remarkable statistics and concur with the notion that children in Harlem, Huntspoint, Brownsville and Bedford-Stuyvesant are more effected by asthma than children in other areas of New York. In fact, they are five times more likely to be hospitalized than children in upper-income neighborhoods like the upper East Side.⁸

CONCLUSION:

Knowing the effects and the prevalence of asthma should jolt any system into immediate action. However, there are still a few who are not convinced and do not see the importance in assuring asthma safety and health care. For instance, on February 26, 1998 Mayor Giuliani canceled funding for a \$2.3 million asthma program that First Lady Hilary Clinton supported last year in a visit last year to the South Bronx. It was reported that the Mayor disengaged the program because the program's president criticized the Department of Health. In other news, in February it was also revealed that millions were set aside from the Clean Water-Clean Air Bond Act to replace the coal furnaces in 265 schools. However, intradepartment quarrels delayed the funds from reaching schools in a timely fashion. Currently, 14 schools have new heaters that were converted with other monies and 20 are under construction, yet money from the Clean Water-Clean Air Act remains untouched.. The previous reports are quite distressing when so many lives are pending on their outcomes.

As parents and school personnel, the people that most significantly protect children, it is our responsibility to take heed of the information outlined and do everything possible to see that

monies are used appropriately and programs are managed accordingly. As adults, all are urged to ensure that children have control over their asthma and not let asthma have control over them.

ADDENDUM

S
ity

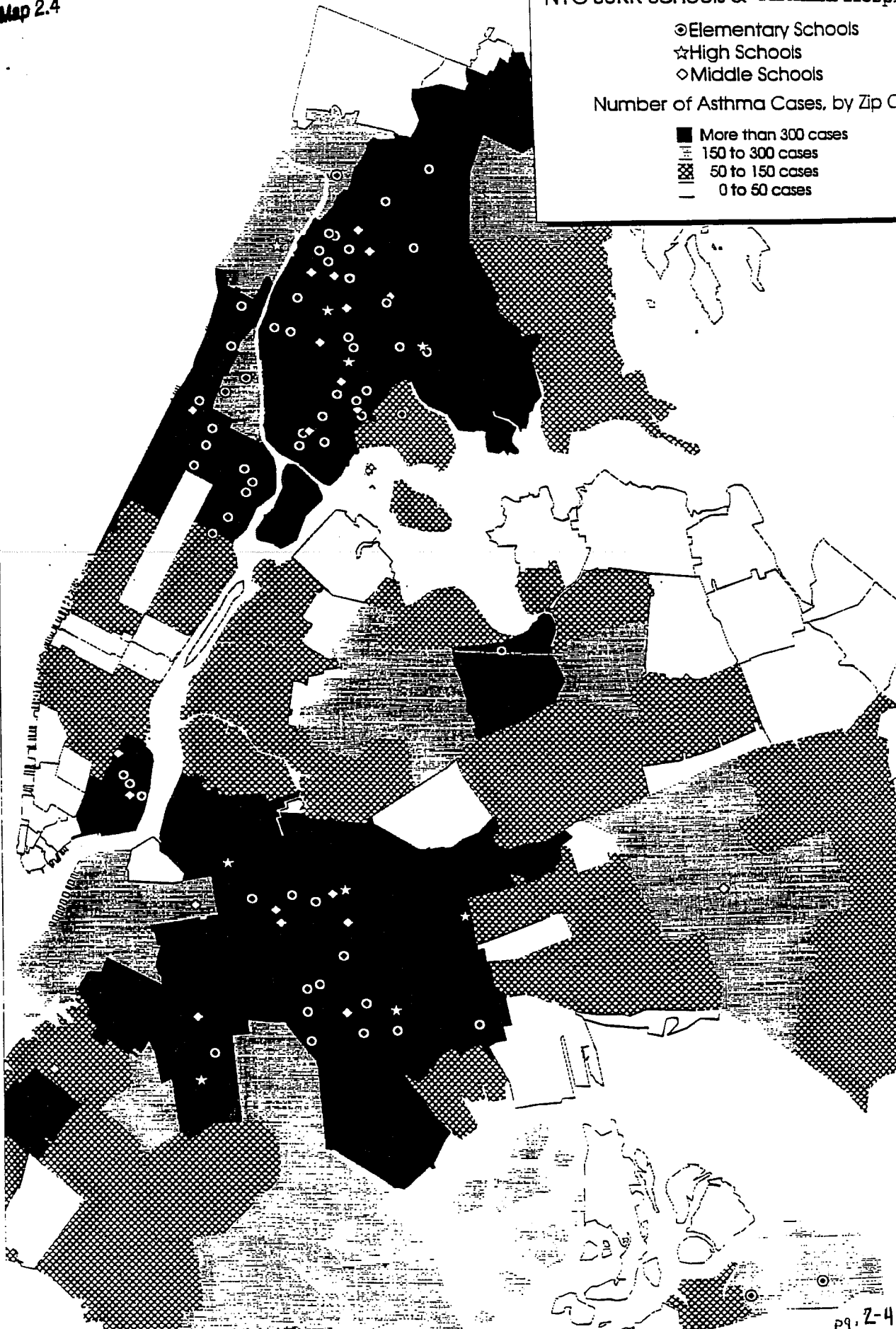
Map 2.4

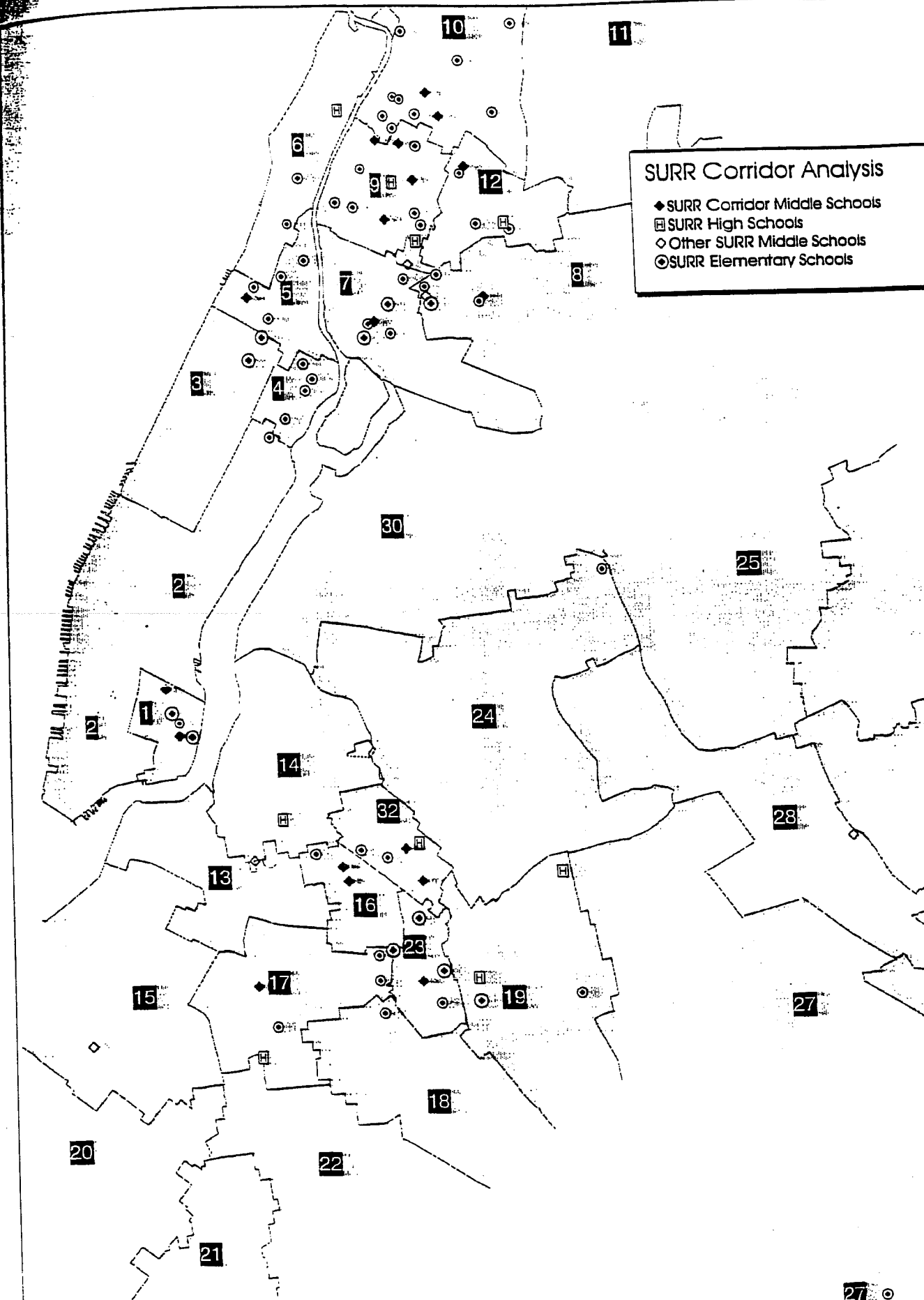
NYC SURR Schools & Asthma Hosp

- ⊙ Elementary Schools
- ☆ High Schools
- ◇ Middle Schools

Number of Asthma Cases, by Zip C

- More than 300 cases
- ▨ 150 to 300 cases
- ▩ 50 to 150 cases
- 0 to 50 cases





Healthy Schools Survey Checklist

<i>Does your school</i>	<i>Yes</i>	<i>No</i>
Have adequate classroom space for all children?	_____	_____
Have a roof and window maintenance program?	_____	_____
Control pests without using toxic chemicals?	_____	_____
Preserve indoor air quality with good ventilation and with nontoxic finishes & furnishings?	_____	_____
Have adequate plumbing and wiring?	_____	_____
Notify you in advance of pesticide or renovation projects?	_____	_____
Clean floors, walls with odorless custodial products and/or vacuum classroom and hall carpets daily?	_____	_____
Test and remove lead in water, paint, playground soils?	_____	_____
Test and control asbestos, radon?	_____	_____
Immediately respond to questions/complaints about conditions?	_____	_____
Purchase wholesome foods for meal programs?	_____	_____
Have energy efficient heating, ventilating, lighting?	_____	_____

Name and Address of School

Asthma Action Plan

Name	Date
Primary Care Provider	Medical Record #
Phone Numbers	
Clinic: Day	Night/Weekend
Taxi or friend	
Pharmacy	



The colors of a traffic light will help you use your asthma medicines.

Green means Go Zone!
Use preventive medicine.

Yellow means Caution Zone!
Add quick-relief medicine.

Red means Stop Zone!
Get help from a doctor.

Personal Best Peak Flow

You have **all** of these:

- Breathing is good
- No cough or wheeze
- Sleep through the night
- Can work and play



Peak flow from

to

MEDICINE	HOW MUCH	HOW OFTEN

For asthma with exercise, take:

CAUTION

You have **any** of these:

- First signs of a cold
- Exposure to known trigger
- Cough
- Mild wheeze
- Tight chest
- Coughing at night



Peak flow from

to

MEDICINE	HOW MUCH	HOW OFTEN

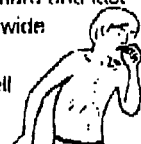
Call your primary care provider.

ACTION: Continue with your medicine, as above, and **ADD:**

DANGER

Your asthma is getting worse fast:

- Medicine is not helping
- Breathing is hard and fast
- Nose opens wide
- Ribs show
- Can't talk well



Peak flow below

ACTION: Take your medicines until you talk to your doctor.

MEDICINE	HOW MUCH	HOW OFTEN

Get help from a doctor now! Do not be afraid of causing a fuss.
Your doctor will want to see you right away. It's important!

If you cannot contact your doctor, go directly to the emergency room. **DO NOT WAIT.**
Call an ambulance (911) if necessary.

Make an appointment with your primary care provider within two days of an ER visit or hospitalization.



May 1997

School Asthma Survey
Instructions for Parent or Guardian

The New York Academy of Medicine, the New York City Department of Health, and the New York State Department of Health, in cooperation with Community School District Four, are requesting your participation in a survey that will try to count how many children in your child's school have asthma or other breathing problems. We will also be trying to understand the reasons that some children have asthma. The survey asks questions about breathing problems your child may have, his/her home environment, and for those children who have asthma, some questions about asthma symptoms. It is important for parents to answer the questionnaire even if their children do not have asthma.

Your participation in this survey is voluntary. However, please return the survey even if you choose not to answer all of the questions. It should take 15 -25 minutes to answer the questions in this survey. In appreciation of your time, your child will receive a gift when he/she returns the survey to his/her teacher. In addition, each classroom will receive an educational gift when at least 90% of the class has returned their surveys to the teacher. Each student has one week (until May 27) to return this material to his/her teacher. If you have more than one child in either P.S. 146 or P.S. 108, you should return one survey for each child.

The results of this survey will be kept confidential. Your child's name will not appear on the questionnaire. The information will be used to help contribute to your community's efforts to address the problem of asthma. Your child should return the survey in the attached envelope to his/her teacher. The teacher will place the envelope in a box in the classroom. The teacher will keep track of who has returned the questionnaire but he or she will not see the responses to the questionnaire. You may keep this set of instructions for your information.

If you have any questions about this study and would like to talk with someone about the survey, please feel free to contact Dr. Thomas Matte, NY Academy of Medicine at (212) 822-7280 or Dr. Daniel Vaszgird at (212) 442-3534. Thank you for your cooperation.

SCHOOL ASTHMA SURVEY

NOTE: PLEASE COMPLETE ONE QUESTIONNAIRE FOR EACH OF YOUR CHILDREN AT THIS SCHOOL, EVEN IF THEY DO NOT HAVE ASTHMA. FOR THIS QUESTIONNAIRE, QUESTIONS THAT ASK ABOUT "YOUR CHILD" REFER TO THE CHILD WHO BROUGHT THIS QUESTIONNAIRE HOME.

We are interested in determining whether certain families or neighborhoods have more problems with asthma.

Please give us the following information about your family to help us answer this question by either checking the box or writing the answer that best describes your child or family.

1. Sex of your child: Male Female 2. Age of your child _____

3. What population group best describes your child?
 African American Asian Native American White Puerto Rican
 Other Hispanic _____ Other _____

4. How many of your children go to this school? _____ How many of those children have ever had asthma? _____

5. Which best describes your total household income from all sources before taxes in 1996? (Please include income from regular jobs, odd jobs, pensions, or government benefits.)
 Less than \$10,000 \$10,000 to \$19,999 \$20,000 to \$39,999 \$40,000 or more

6. What is the highest level of education that you completed? (check only one)
 Less than high school Some college or trade school
 High school diploma/GED College, graduate, or professional degree

7. How many people live in your home? _____ Adults _____ Children

8. How many rooms (not including bathrooms) are there in your home? _____

9. Do you have a working telephone in your home? Yes No
If yes, has your phone been disconnected or out-of-service for at least 48 hours any time in the last year? Yes No

10. In your home do you have any of the following? (check all that apply)
 Cat Air conditioner (working)
 Dog Throw Rug
 Bird Wall to wall carpeting
 Other Pets with fur Gas cooking stove

11. In the past month, have you seen any of the following in your home?
Rats Yes No
Mice Yes No
Cockroaches Yes No

12. How is your home heated?

- Forced hot air Yes No
Baseboard Yes No
Plug in electric heater Yes No
Radiator Yes No
Other _____

13. Does anyone who lives in your home or regularly visits, smoke or use any of the following in your home?

- Cigarettes Yes No
Cigars Yes No
Pipe Yes No
Incense Yes No

14. Has your child ever had wheezing or whistling in the chest at any time in the past? Yes No Don't Know

IF YOU ANSWERED "NO" TO QUESTION 14, PLEASE SKIP TO QUESTION 19

15. Has your child had wheezing or whistling in the chest in the last 12 months? Yes No Don't Know

IF YOU ANSWERED "NO" TO QUESTION 15, PLEASE SKIP TO QUESTION 19

16. How many attacks of wheezing has your child had in the last 12 months?

- None 1 to 3 4 to 12 More than 12

If your child has had more than 12 attacks in the last 12 months, how often do they occur?

- Less than once a week About once a week More than once a week

17. In the last 12 months, how often, on average, has your child's sleep been disturbed due to wheezing?

- Never wakes up with wheezing Less than one night per week One or more nights per week

18. In the last 12 months, has wheezing ever been severe enough to limit your child's speech to only one or two words at a time between breaths? Yes No Don't Know

19. In the last 12 months, has your child's chest sounded wheezy during or after exercise?

- Yes No Don't Know

20. In the last 12 months, has your child had a dry cough at night, apart from a cough associated with a cold or a chest infection?


- Yes No Don't Know

21. Has your child ever had asthma?

- Yes No Don't Know

22. Has your child ever been told by a Doctor or nurse that he/she has asthma?

- Yes No

➤ ***IF YOU ANSWERED YES TO #21 or #22 PLEASE FILL OUT THE NEXT SECTION*** 

➤ ***IF YOU ANSWERED NO TO #21 and #22, THANK YOU FOR COMPLETING THE SURVEY. PLEASE HAVE YOUR CHILD RETURN THIS QUESTIONNAIRE TO HIS/HER TEACHER IN THE ATTACHED ENVELOPE. YOUR CHILD WILL RECEIVE A GIFT FOR RETURNING IT.***

QUESTIONS CONCERNING CHILDREN WITH ASTHMA

23. In the last 12 months, has your child ever had an episode of asthma or an asthma attack?

Yes No

24. In the last 12 months, has your child ever been taken to an emergency room or urgent care clinic for an episode of asthma or an asthma attack?

Yes No *If yes, how many times?* _____

25. In the last 12 months, has your child stayed over night in the hospital (not including the emergency room) because of asthma?

Yes No

26. During the past month, has your child's asthma ever stopped him/her from participating in sports or other vigorous activities?

Yes No

27. During the past month, for about how many days did your child's asthma prevent your child from going to school?

None Number of Days _____

28. When was the last time you visited a doctor's office, clinic or health center and had your child's asthma or his/her breathing checked?

- Less than 6 months ago
- 6 months to less than 1 year ago
- 1 year to less than 2 years ago
- 2 years to less than 5 years ago
- 5 or more years ago

29. Have you and your doctor or other health care provider worked out a plan for taking care of your child's asthma?

Yes No

If yes, what is included in that plan? (check all that apply)

- Steps to remove asthma triggers from the home
- Medicines to be taken regularly.
- Medicines to be used in the case of an asthma attack.
- How to know when you need to call your child's doctor.
- How to know when your child needs to go to the emergency room.

30. Does your child take any medications for asthma? Yes No

If yes: What medications does he/she take: _____

31. Does your child take any of these medications every day, even when he/she is not having trouble breathing? Yes No

If yes: What medications does he/she take every day? _____

32. Does your child have a nebulizer? Yes No

If yes: How often does your child use it? Daily 3-4 times a week Once a week A few times a month
 Occasionally (only when having an asthma attack) Never

33. Does your child have an inhaler or a pump? Yes No

IF YOU ANSWERED NO, SKIP TO QUESTION 34

If yes: What is the name? _____

Does your child have a spacer tube (A tube or chamber that the child puts between his/her mouth and the inhaler)?
 Yes No

Does your child use it regularly? Yes No

34. Does your child have a peak flow meter to check his/her breathing (A device to see how fast your child can breathe out)?
 Yes No

If yes: How often do you or your child keep a peak flow diary?
 Monitors daily/weekly Once a month Every 2-3 months
 When having an asthma attack Once (when it was new) Never

35. Are your child's asthma attacks more frequent or severe at certain times of the year?
 Yes No

If yes: In which months are the asthma attacks more frequent or severe? (check all that apply)

- | | |
|-----------------------------------|------------------------------------|
| <input type="checkbox"/> January | <input type="checkbox"/> July |
| <input type="checkbox"/> February | <input type="checkbox"/> August |
| <input type="checkbox"/> March | <input type="checkbox"/> September |
| <input type="checkbox"/> April | <input type="checkbox"/> October |
| <input type="checkbox"/> May | <input type="checkbox"/> November |
| <input type="checkbox"/> June | <input type="checkbox"/> December |

36. Has your child's asthma ever been made worse by any of the following? (check all that apply)

- | | |
|--|--|
| <input type="checkbox"/> Dust | <input type="checkbox"/> Stress |
| <input type="checkbox"/> Pollen/Ragweed | <input type="checkbox"/> Emotional upset or excitement |
| <input type="checkbox"/> Animals or birds | <input type="checkbox"/> Food or drink |
| <input type="checkbox"/> Air pollution | <input type="checkbox"/> Medicines |
| <input type="checkbox"/> A virus or cold | <input type="checkbox"/> Perfume or cologne |
| <input type="checkbox"/> Tobacco smoke | <input type="checkbox"/> Mold |
| <input type="checkbox"/> Being at school | <input type="checkbox"/> Insect sprays |
| <input type="checkbox"/> Physical activity | <input type="checkbox"/> Cleaning Products |
| <input type="checkbox"/> Cold air | Anything else you can think of? _____ |

➤ **THANK YOU FOR COMPLETING THIS SURVEY. PLEASE HAVE YOUR CHILD RETURN THIS QUESTIONNAIRE TO HIS/HER TEACHER IN THE ATTACHED ENVELOPE. YOUR CHILD WILL RECEIVE A GIFT FOR RETURNING IT.**

School Asthma Survey

Please answer the following questions as accurately as possible:

School facilities:

- a. How long have you attended your current school?
- b. How many years have you attended public school in New York City?
- c. Do you ever see insects (roaches, etc.) in school?
- d. Is the temperature always appropriate in school (too hot, too cold)?
- e. What is the general physical condition of your school?
- f. Is there nearby construction? If so, how long has it been there?
- g. Has your health status altered since construction began?
- h. Have you been diagnosed with asthma?

If you answered yes to question (h), please answer the following questions:

- a. When was your initial diagnosis?
- b. Do you have medication?
- c. Were you and your parents given proper medication administration instructions?
- d. Does your school know of your condition?
- e. Does your school nurse have medication for you?
- f. When was your last attack?
- g. How frequent are your attacks?

- h. Have you ever had an attack in school? If so, how was it handled, what procedures were taken?

- i. Were you informed by school personnel that by filling out a form entitled "504" an asthmatic student can bring medicine to school and in some cases get free medical services?

Thank you for participating in this survey !!!!!

Survey Responses

This survey was conducted by Natasha Johnson of Advocates for Children of New York. Survey participants were 7th and 6th graders gathered from Columbus Academy, an intermediate school, located on W77th Street and Amsterdam Avenue.

53 Total responses: 5 with asthma, 48 w/out asthma

School facilities:

- | | | |
|----------------------|--------------------|---------------------------|
| a. Within 1 year: 27 | Within 2 years: 19 | Within 3 or more years: 5 |
| b. 1-3 years: 3 | 4-6 years: 17 | 7-10 years: 31 |
| c. Yes: 43 | No: 10 | |
| d. Yes: 14 | No: 39 | |
| e. Good: 14 | Poor: 11 | Sufficient: 19 |
| f. Yes: 26 | No: 25 | |
| duration: | | |
| 1-6 months: 16 | 7-12 months: 1 | More than 12 months: 2 |
| g. Yes: 1 | No: 47 | |
| h. Yes: 5 | No: 48 | |

Asthma questions:

- | | | |
|---------------------|------------------|---------------------------|
| a. birth-4 years: 3 | 5 years-8 years: | 9 years-12 years: |
| b. Yes: 4 | No: 1 | |
| c. Yes: 4 | No: | |
| d. Yes: 3 | No: 2 | |
| e. Yes: 1 | No: 3 | Doubtful: 1 |
| f. 1-4 months: 1 | 5-8 months: | 9-12 months: 4 |
| g. daily: | weekly: | monthly: 2 yearly: 2 |
| h. Yes: | No: 5 | |
| i. Yes: | No: 5 | |

Asthma Survey Percentages and Assessments Survey Conducted during Summer, 1998

90.56% have not been diagnosed with asthma

9.43% have been diagnosed with asthma

a.	51.3%	35.84%	9.23%	
b.	5.25%	32.4%	56.3%	
c.	81.13%	18.86%		
d.	26.41%	73.58%		
e.	26.41%	20.75%	35.84%	
f.	49.05%	47.16%		
	duration: 30.18%	1.8%	3.77%	
g.	1.8%	88.67%		
h.	9.43%	90.56%		
Asthma:				
a.	5.6%	0	0	
b.	7.54%	1.8%		
c.	7.54%	0		
d.	5.6%	3.77%		
e.	1.8%	5.6%		
f.	1.8%	0	7.54%	
g.	0	0	3.77%	3.77%
h.	0	9.43%		
i.	0	9.43%		

