

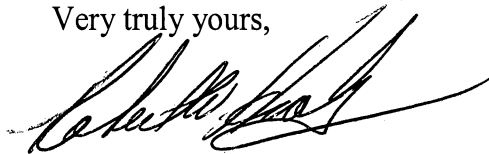
Infant mortality in Cambridge

Year	<u>Number</u>	White	Black	Hispanic	Asian
1997	3	1	1		1
1998	2	1			1
1999	4	2	1		1
2000	4	1		2	1

Infant mortality Rate by Year

Year	Cambridge		Boston		MA	
	n	IMR per 1000	n	IMR per 1000	N	IMR per 1000
1989	10	8.13	108	10.5	697	7.63
1990	9	7.48	105	10.16	649	7.02
1991	3	2.54	81	8.35	576	6.53
1992	11	9.74	98	10.57	569	6.53
1993	7	6.74	86	9.76	523	6.18
1994	2	1.82	77	9.11	499	5.96
1995	4	4.13	54	6.72	419	5.14
1996	3	3.11	56	7.26	403	5.03
1997	3	2.96	66	8.44	425	5.29
1998	2	1.93	46	5.84	414	5.09

Very truly yours,



Robert W. Healy
City Manager

RWH/mec

City of Cambridge

MEETING

ROUNDTABLE MEETING

Public Health Infrastructure and Infant Mortality

DATE

June 3, 2002
5:53 P.M.

PRESIDING OFFICER

Mayor Sullivan

PRESENT

Mayor Sullivan, Vice Mayor Davis, Councillors Davis, Decker, Maher, Murphy, Reeves, Simmons and Toomey

Also present were City Clerk D. Margaret Drury, Deputy City Clerk Donna P. Lopez, and Sandra Albano, City Council Assistant

John O'Brien, Chief Executive Officer, Cambridge Health Alliance, Harold Cox, Cambridge Chief Public Health Officer, Karen Hacker, Director of the Institute for Community Health, Ricki Lacy, Director of Public Health Nursing, Ellen Kramer, Director of Health Information Unit, Cambridge Health Alliance, Maria Roloff, Director of Human Resources, Cambridge Health Alliance, Donna Bonaparte, Human Resources, Cambridge Health Alliance, Rick Boehle, Cambridge Health Alliance, Sam Lipson, director, Environmental Health Unit, Department of Public Health (DPH), Jill Herold, Assistant City Manager for Human Services, Ellen Semonoff, Deputy Director, Department of Human Services (DHS), Robert Bersani, Commissioner of Inspection Services, and several other members of the staff of DPH, DHS, members of the Cambridge Public Health Subcommittee of the Cambridge Health Alliance, the Human Services Commission and staff of various nonprofit agencies working in public health areas.

See attached summary of discussion points

7:30 P.M., on motion of Councillor Maher

ADJOURNMENT

8:10 P.M.

Summary of Discussion and Issues Raised

Mayor Sullivan called the meeting to order and invited John O'Brien, Chief Executive Officer of the Cambridge Health Alliance, to begin the discussion. Mr. O'Brien began with an overview of the continuing problems in the area of financing health care. The Cambridge Health Alliance has an annual budget of more than \$400 million, which is being impacted by federal and state budget deficits and growing inflation of medical costs. Cuts in the state budget will mean big losses for public health funding across the board. Further cuts in Medicaid are expected. On the federal level, Medicare program will continue to reduce payments for hospital services.

Harold Cox, Cambridge Chief Public Health Officer, distributed summaries of the material that the PHD staff would be discussing. (ATTACHMENT A) He opened the discussion of the work of the Cambridge Public Health Department with a brief description of some of the highlights of PHD work in Cambridge over the past year, including school health (58,000 student visits to school nurses), domestic violence (assessment of prevention and intervention services for city residences), the Healthy Homes project (183 total home visits) and the addition of body art practitioner and establishment licensing responsibilities.

Mr. Cox then made a short presentation on the emergency preparedness work of the PHD. Cambridge is participating in a statewide plan to improve emergency preparedness and is working with other localities to develop strategies for regionalization and standardization of public health emergency responses. Mr. Cox then moved to the topic of West Nile virus. He informed the Council that 4 infected birds have been found to date and described the PHD response. He distributed copies of the 2001 Cambridge West Nile virus Response Plan (ATTACHMENT B), which will slightly revised and sent to all Cambridge households.

Dr. Karen Hacker, Executive Director of the Institute for Community Health (ICH), a new collaborative organization founded by the Cambridge Health Alliance, the Mount Auburn Hospital of CareGroup and the Massachusetts General Hospital of Partners Health Care, described the purpose and work of this new initiative. The institute is dedicated to health status improvement through facilitation and collaborative sponsorship of community-based participatory research that links academic institutions to community partners. This type of research is a participatory process in which the community assists in formulating the research questions, interpreting the results and ultimately using the information to effect change and lead to measurable decreases in morbidity and mortality. Current focuses include child mental health, survey of behavior risk and resiliency, and child physical activity enhancement.

Ricki Lacey, Director of Public Health Nursing, then reported on the ongoing work in the Asthma Initiative and its goals of standardization of care for asthma throughout the community. She described the work of the Pediatric Asthma program, and the goals of improving the quality of life by prevention and good management of the condition. Expected outcomes are decreases

in emergency room visits and school absences. The asthma registry will be an important tool in this regard. Cambridge and Somerville pediatric sites are targeted for the pilot of the registry. The registry offers computerized, web-based access to parents, primary care physicians, school nurses and emergency rooms for all pediatric asthma patients. Each child will have a standardized asthma control plan which will facilitate early intervention and treatment of asthma attacks. The program will link very well with the Healthy Homes program, which provides free home visits from nurses and trained technicians who can provide advice on identifying and eliminating asthma triggers in the home. In addition, the program can provide, free of charge, items such as mattress covers that reduces asthma triggers.

Mayor Sullivan raised several questions regarding the increase in childhood asthma, including the rate of increase, whether the increase is due to environmental factors, whether there are new allergy medications that can prevent the development of asthma and are not covered by insurance.

A question from Councillor Decker on how to respond to tenants living with conditions constituting asthma triggers but were frightened of calling their landlords resulted in a discussion of the coordination of the commissioner of Inspectional Services (IDS) and the director of environmental health, PHD. Mr. Lipson said that he has had success in dealing with the Cambridge Housing Authority and the management of Rindge Towers regarding the elimination of conditions that are asthma triggers. Federal subsidies in publicly assisted housing subject the owners to HUD regulations, which are more comprehensive in this area than the state sanitary code. Private landlords are required to comply with the state sanitary code and the building code, and Inspectional Services has been very cooperative in working to cite and eliminate asthma triggers that are also violations of these codes. Mr. Lipson does not start with discussing filing code violation complaints with ISD, because tenants are often intimidated. He has been able to solve some situations through education and negotiation with the landlords. However, tenants need to know that when the basis is code violation, if the landlord does not comply voluntarily, enforcement is through filing a complaint, which will name the tenant.

Councillor Decker requested some of the flyers with the sanitary code and federal regulations to give to tenants who have questions about these issues.

Vice Mayor Davis raised the issue of asthma triggers in public school buildings, where asthmatic students spend six hours a day five days a week. Mr. Lipson described a new initiative of the EPA – “Tools for Schools,” which includes looking at integrated pest management, janitorial issues and heavy input from parents. While the data is not so strong as to connect particular conditions in schools with particular asthma cases, there is lots of data that certain conditions should not exist.

Vice Mayor Davis requested that the DPH analyze data with respect to which schools kids being treated for asthma attacks are coming from, when that data is available from the new asthma registry.

Councillor Galluccio suggested working with youth sports coaches and youth center staff in the asthma education efforts.

Councillor Reeves wanted more specifics on where to send citizens who come to him with a particular problem, particularly men of color. When he has a citizen with a problem, he is not looking for a network, he is looking for a "go to."

Maria Roloff, director, and Donna Bonaparte, Human Resources Department, Cambridge Health Alliance, presented information on Alliance workforce diversity and staffing levels. The nationwide shortage of nurses and other health care professionals is very serious. Although there are only 50 vacancies out of 800 nurse positions, the amount of time, energy and expense that goes into recruitment is enormous.

Ellen Kramer, Director of Health Information, reviewed her report on infant mortality. Cambridge's infant mortality rate for 1998-2000 is 3.1 out of 1000, lower than the Massachusetts rate and the national rate. An important reason is the high percentage of mothers receiving adequate prenatal care. Cambridge offers extensive free prenatal care.

Councillor Murphy noted that the chart shows that the percentage of mothers receiving adequate prenatal care in Cambridge is 80.3 %. He said that he understands why more affluent communities such as Brookline and Newton have higher percentages, but he questioned why the percentage in Framingham (89.3) is so much higher. Mr. O'Brien said that Councillor Murphy has raised an interesting question and that his staff will look more closely at what Framingham is doing.

Members of the City Council expressed their appreciation to the Public Health Department and the Cambridge Alliance for their excellent work on behalf of the health of the citizens of Cambridge. The meeting ended at 8:10 p.m.

ROUNDTABLE DISCUSSION
ON THE CAMBRIDGE PUBLIC HEALTH DEPARTMENT
JUNE 3, 2002

Opening comments	J O'Brien
Public Health Highlights Emergency Preparedness West Nile Virus	Harold Cox
Institute for Community Health	Karen Hacker
Asthma	Ricki Lacy
Infant Mortality	Ellen Kramer
Employee Information for Cambridge Health Alliance	Maria Roloff and Donna Bonapart

CAMBRIDGE HEALTH DEPT HIGHLIGHTS

Newborn Home Visiting 115 families have been offered **visiting services** by public health nurses.

Tobacco Control Established Clean Air Works: a collaborative of 12 communities to strengthen smoking policies in those communities.

Oral Hygiene and Screening

Education

500 preschool students attended

3,188 kindergarten through grade 4

Screening

454 preschool screened

2,570 kindergarten through grade 4 screened

TB and Communicable Disease Monitoring

2,700 visits to the TB clinic for FY 01

243 visits to patients for direct observed therapy

Cambridge Walks Golden shoes rolled out for 2nd year to provide awareness about the health benefits of walking.

Flu Vaccine Distribution

9,326 Doses distributed to area providers

1,854 Doses given by Cambridge Public Health Nurses in flu clinic

School Health 58,000 student visits to school nurses for first aid, illness assessment, and nursing procedure.

Domestic Violence Currently completing assessment of prevention and intervention services for city residents facing domestic violence.

Literacy With the help of city officials, The Agenda for Children is launching its "Let's Talk. . . It Makes A Difference!" public awareness campaign aimed at increasing the amount of "talk" that takes place between children and their parents and caregivers. 250 students have participated.

Air and Water Quality Problems Significant participation in site investigations regarding W.R. Grace, Russell Field, Cyclotron.

Healthy Homes

183 Total home visits (73 new home visits and 111 follow up home visits)

Licenses issued in FY'01

37 Recombinant DNA research and manufacturing permits

26 permits to conduct experiments on live animals

210 licenses for massage therapists

42 licenses for massage establishments

2 body art establishments

12 body art practitioner

15 funeral directors

EMERGENCY PREPAREDNESS

State

1. Participate in statewide plan to improve public health emergency preparedness, and the grant proposal to received \$21 million in MA
2. Participate in statewide public health regionalization planning

Regional

1. Develop strategies for standardized responses to WNV and other public health emergency responses

Cambridge (LEPC)

1. Mobilize citywide health committee to address emergency preparedness. Current topics include: communications among all health entities; pharmaceutical push pak, incident command system, provider training, and ability to prepare for mass vaccine.

Cambridge Heath Alliance

1. Develop/rollout HEICS system
2. Drills
3. preparation for decontamination

Public Health Department

1. Emergency Department Surveillance System
2. Coordination with local hospitals
3. Friday morning conference calls for medical networking

WEST NILE VIRUS

Definition: Mosquito-borne illness that can cause a form of encephalitis

Current status: 3 birds found in MA (Wakefield and Stoneham)

Current Activities:

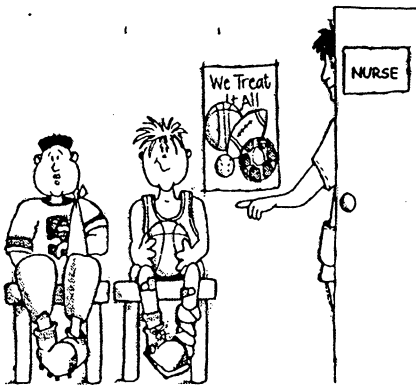
1. Standardize approach with health department in our region
2. Mail WNV information to all Cambridge households
3. Send WNV information in Beyond BandAids to all parents of school students
4. Conduct larvicide treatment in catch basins
5. Update website and info phone line

Beyond Band-aids

A Bi-annual Publication of the Cambridge School Health Program

7th Grade Immunization Requirements

7th Grade Immunization Requirements



Spring/Summer 2002

In this Issue...

- * West Nile Virus
- * Healthy Homes
- * Health Office Reminders

Many of your children have probably received most of their immunizations by sixth grade.

However, some of these immunizations now require a booster. Or, if your child hasn't had chicken pox by now, a vaccination is recommended. Children entering 7th grade will be required to have the following in order to start school in September: Proof of having had the Chicken Pox or the Chicken Pox Vaccine, Hepatitis B Vaccine Series, MMR #2 or booster and a Tetanus booster.

Why not check with your child's primary care provider when scheduling camp and school physicals? Any and all of this information can be handed in to the school nurse now, and will be greatly appreciated.

Most importantly this should include:

- + A completed physical
- + Updated immunizations
- + A sports clearance, (even if you are not certain you'll play).

The Teen Health Center is a neighborhood health center, operated by the Cambridge Health Alliance, located right inside CRLS, specializing in the care of adolescents. It has two components:

School Health is provided for all students attending CRLS and includes emergency and sick care, immunization, health promotion and referrals. Hours of operation are Monday through Friday, 7:30-3:15, following the school calendar.

Primary Care Clinic provides medical care to both CRLS students and teens from surrounding communities. It is open all year long, Monday through Friday, 8:30-5:00.

If you need a health care provider, please call or stop in for more information.



Health Office Phone Numbers

Baldwin	349-6746
Cambridgeport	349-6065
Fitzgerald	349-4049
Fletcher/Maynard	349-6596
Graham & Parks	349-6798
Haggerty	349-6557
Harrington	349-6549
Kennedy	349-6036
King/King Open	498-1117
Longfellow	498-1106
Morse	349-4003
Peabody	349-6580
Tobin	349-6619
CRLS	665-1548

9th Grade Health Requirements

9th Grade Health Requirements

Make sure your child is ready to begin high school by providing the Teen Health Center with the necessary information. Please complete and return all mailings related to health.



While dressing your child...

At bed time...

At bath time...

While going somewhere...

While cooking...

At meal time...

At the Laundromat...



West Nile Virus

Cambridge is working to reduce the number of mosquitoes by eliminating places where they breed by:

- + Cleaning and repairing storm drains and catch basins and treating them to reduce the number of mosquitoes that hatch
- + Cleaning up areas of standing water in roadways and on public property
- + Collecting dead birds and trapping mosquitoes for testing

West Nile Virus can only be transmitted to humans by the bite of an infected mosquito. The virus can cause serious illness and even death in some people.

Personal Protection – From May to October

- + Use insect repellent that contains DEET
10% OR LOWER FOR CHILDREN
USE DEET ACCORDING TO MANUFACTURER'S DIRECTIONS!

- + Repair or replace broken screens

Eliminate Breeding Sites Near Your Home

Mosquitoes lay their eggs in standing water

- + Remove discarded tires around your home
- + Get rid of containers that hold water
- + Clean gutters in the spring and fall
- + Clean and chlorinate swimming pools and hot tubs. If empty, keep them covered.
- + Drain water from pool covers
- + Change water in bird baths weekly
- + Turn over wading pools and wheelbarrows when not using

Massachusetts Department of Public Health
MDPH Web Page: www.state.ma.us/dph

Cambridge Public Health Department

Information Line 617-665-3801
www.cambridgepublichealth.org

For automatic e-mail updates, e-mail us at
westnile@ci.cambridge.ma.us
with "subscribe" in the BODY of your message.

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In this corner... more reminders!!!

Just some reminders to help with a smooth start in September.

- ✍ Please pick up any unused medication. It will be discarded, and not available in September.
- ✍ Medication forms will need renewing. The summer is a good time to get your forms in order. Pick them up at the health office.
- ✍ Remember to keep those Emergency Cards up to date. It is the most reliable means we have to contact you if your child needs you.
- ✍ Keep us informed about changes in your child's health status. Together we can make a plan so health needs do not interfere with your child's achievement in school.



Cambridge Healthy Homes Program

The Cambridge Public Health Department recently began a new program, "Cambridge Healthy Homes" to help children who are at risk for asthma or other breathing problems. Children who are at risk for asthma often live with "asthma triggers" in their own homes. Asthma triggers are things that can make asthma worse, such as pet dander, mold, dust mites, rodents, smoke, or cockroaches. The healthy homes program offers free home checks for asthma triggers, free information, and other free materials, such as cleaning supplies or mattress covers. To be in the program, you must rent your home, have a child under the age of 12, and someone in the family must have asthma or another chronic breathing problem. For more information, call Alicia Morris, Program Coordinator, at 665-3836.



Beyond Band-aids is a bi-annual publication produced by the School Health Program of the Cambridge Public Health Department

Editorial Board: Kathleen Kelleher, BSN, RN; Laurie Mass, BSN, RN; Bonnie Wilkins, BSN, RN

Susan Breen, MS, RN, CS, Clinical Manager, School Health; Ricki Lacy, MS, RN, Director of Public Health Nursing; Lisa Dobberteen, MD, School Health

Institute for Community Health

A collaboration of the Cambridge Health Alliance,

CareGroup, and Partners HealthCare

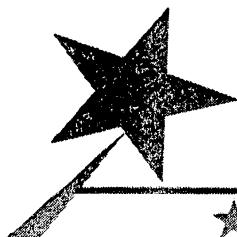
Executive Director, Karen Hacker, MD MPH

VISION

The Institute for Community Health (ICH) will be a nationally recognized organization dedicated to health status improvement through facilitation and collaborative sponsorship of community-based research, assessment, dissemination and educational activities

CURRENT PROJECT AREAS

- Mental Health
- BRFS
- Obesity Prevention/Physical Activity Promotion



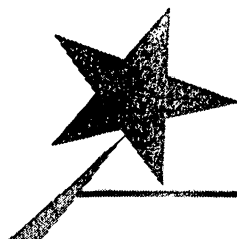
Asthma Pilot Project

★ **Aim:** To improve the quality of life and reduce the burden of illness for children with asthma and their families, by prevention and optimal management.

★ **Measures/Results:**

- ★ Reduce days absent from school due to asthma by 50%
- ★ Decrease emergency room visits by 25% and significantly reduce hospitalizations.
- ★ Significantly increase symptom-free days.





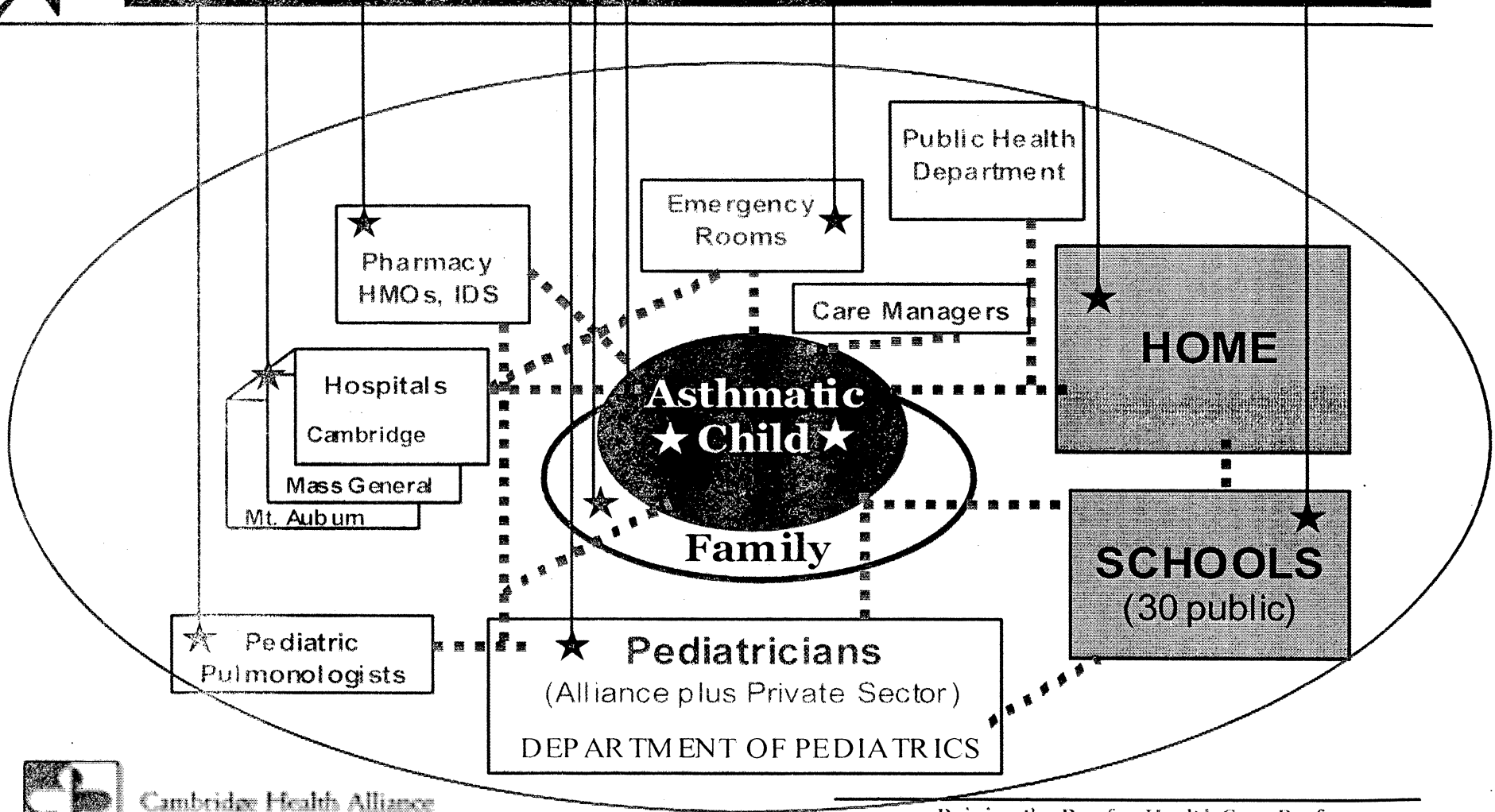
Registry

- ★ Database linked to, and accessible by, all partners including schools
- ★ Data elements:
 - ★ Patient demographics
 - ★ Clinical data - severity category (NHLBI), peak flow, current treatment, outcome measures
 - ★ Utilization:
 - ★ Inpatient, ambulatory, emergency visits
 - ★ Pharmacy
 - ★ Teaching
 - ★ Monitoring - follow-up visit schedule, medication use and monthly review
 - ★ Reports (individual patient and entire cohort)
 - ★ Quality Improvement
 - ★ Research



A10

CHILDHOOD ASTHMA REGISTRY

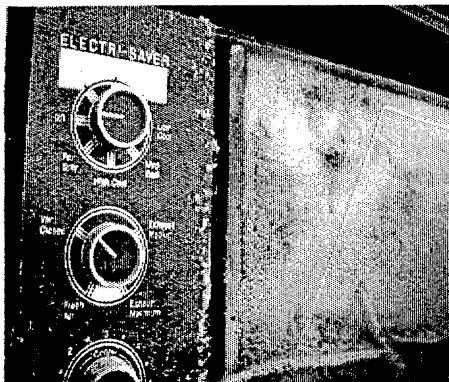


Cambridge Health Alliance
A COMMUNITY OF CARING

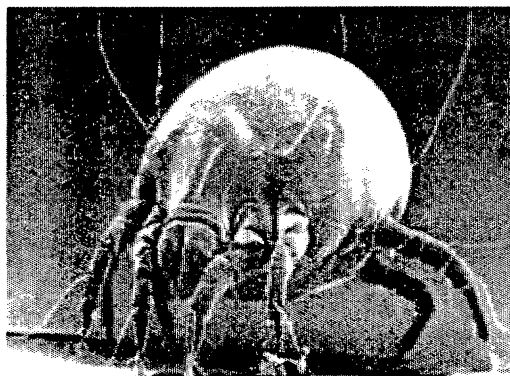
Raising the Bar for Health Care Performance

All

Asthma triggers found in homes we visited



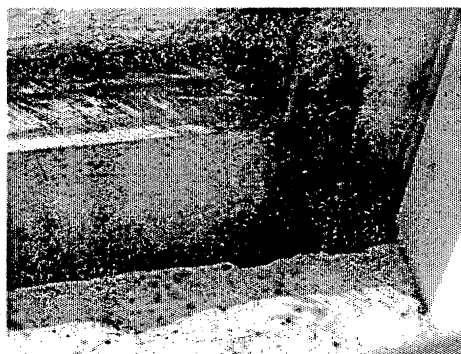
Healthy Homes unit in Somerville:
Clogged Air Conditioner



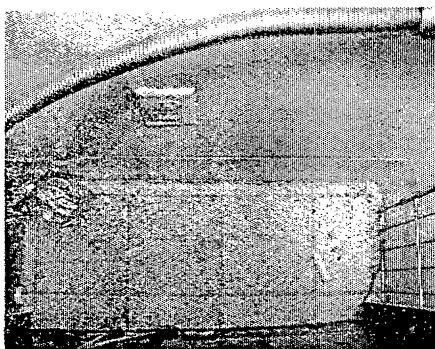
85% of children with asthma are allergic to:
Dust Mites



Healthy Homes unit in Cambridge:
Cockroach Dander



Healthy Homes unit in Somerville:
Mold

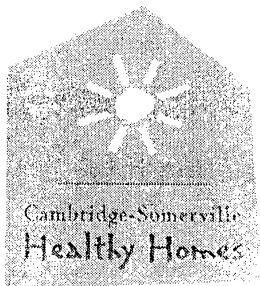


Healthy Homes unit in Somerville:
Mouse Droppings



Healthy Homes unit in Cambridge:
Debris-Filled Floor Vent

Cambridge-Somerville Healthy Homes Program



*Helping Kids
Breathe Easier*

Program Description

- A program of the CHA and CPHD
- Medical-Environmental Model
- Include the following, free of charge
 - home assessment to identify hazards such as asthma triggers, code violations, injury risks
 - indoor air quality investigations as appropriate (industrial hygienist)
 - medical/environmental education

Program Description, cont.

- distribution of items to reduce home environmental risks
- coordinate care among home, medical providers, and school
- link families to community resources

INFANT MORTALITY IN CAMBRIDGE

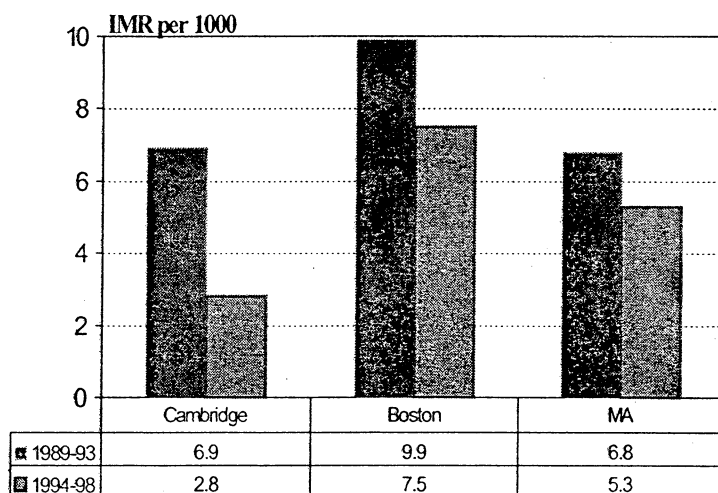
Definition: Infant mortality, death in the first year of life, is an important measure of health status. Nationally disparity in infant mortality rates between whites and specific racial and ethnic groups (including African American) persists. Nationally overall infant mortality rate has reached record low levels, but the rate for African Americans remains twice that of whites.

In Cambridge between 1994 and 1998 the Infant mortality rate was 2.75, while the rate in Boston was 7.49 and the statewide rate was 5.3. The Healthy People 2010 goal is to reduce all infant deaths to 4.5 per 1000 births.

Disparities in Cambridge. In Cambridge in 1999 and 2000 there were 4 infant deaths each of the years (total of 8). Of these 8 deaths, one child was Black.

Infant Mortality Rate

Cambridge, Boston, and MA: 1994-1998



Source: Mortality, MassCHIP v2.8 r265.0

Infant mortality in Cambridge

Year	Number	White	Black	Hispanic	Asian
1997	3	1	1		1
1998	2	1			1
1999	4	2	1		1
2000	4	1		2	1

A12

Infant mortality Rate by Year

Year	Cambridge		Boston		MA	
	n	IMR per 1000	n	IMR per 1000	N	IMR per 1000
1989	10	8.13	108	10.5	697	7.63
1990	9	7.48	105	10.16	649	7.02
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1997	3	2.96	66	8.44	425	5.29
1998	2	1.93	46	5.84	414	5.09

Table 3A.(cont'd) Resident Birth Characteristics, 30 Largest Municipalities¹, Massachusetts: 2000

Municipality	Birth					Deaths			
	Adequate Prenatal Care	Public Payment for Prenatal Care	Unmarried	Teen Mothers 15 to 19 years		Infant Mortality Rate ⁶		Neonatal Mortality Rate ⁶	
	%	%	%	n	Rate ²	2000	1998-2000	2000	1998-2000
STATE TOTAL	79.1	27.5	26.5	5,305	25.8	4.6	5.0	3.5	3.8
Arlington	86.3	5.7	7.6	6	7.8	0.0	-- ⁵	0.0	-- ⁵
Attleboro	78.7	26.9	22.4	47	40.8	-- ⁵	-- ⁵	-- ⁵	-- ⁵
Barnstable	80.4	32.6	26.4	29	22.5	-- ⁵	7.5	-- ⁵	4.1
Boston	76.7	48.6	44.2	785	35.3	6.7	6.6	5.3	5.3
Brockton	63.1	52.6	52.3	218	66.0	5.8	6.5	3.8	5.4
Brookline	90.0	5.9	5.2	6	4.3	0.0	-- ⁵	0.0	-- ⁵
Cambridge	80.3	17.4	19.2	27	7.2	-- ⁵	3.1	-- ⁵	2.2
Chicopee	73.7	43.9	40.5	56	31.0	-- ⁵	7.2	-- ⁵	6.1
Fall River	73.7	55.9	49.4	150	51.5	10.1	8.9	8.4	7.1
Framingham	89.3	25.5	18.7	45	23.4	5.0	4.4	-- ⁶	4.0
Haverhill	79.4	32.2	30.2	68	37.9	-- ⁵	4.2	-- ⁵	3.1
Lawrence	68.0	65.9	63.9	278	97.6	7.1	6.9	5.6	5.2
Lowell	62.5	48.3	47.1	248	63.4	5.7	6.2	5.1	4.5
Lynn	60.3	59.8	50.4	189	63.2	8.3	6.9	6.2	5.0
Malden	79.4	27.8	23.1	26	18.7	-- ⁵	5.1	-- ⁵	4.2
Medford	84.4	16.3	15.7	11	6.3	-- ⁵	4.3	-- ⁵	3.8
Methuen	77.6	23.5	25.2	35	27.7	13.5	7.1	13.5	6.5
New Bedford	70.8	59.0	54.3	195	65.5	4.6	5.7	-- ⁵	3.1
Newton	85.6	4.7	6.2	8	2.3	-- ⁵	2.3	-- ⁵	-- ⁵
Peabody	73.4	21.8	18.7	20	15.4	11.1	8.4	-- ⁵	6.0
Pittsfield	61.8	46.9	42.4	58	42.6	-- ⁵	-- ⁵	0.0	-- ⁵
Plymouth	79.1	19.0	19.4	23	14.6	-- ⁵	5.4	-- ⁵	3.4
Quincy	86.0	20.6	18.3	39	20.0	4.3	3.3	-- ⁵	2.7
Revere	71.8	42.8	31.4	35	28.8	0.0	3.7	0.0	3.2
Somerville	75.0	31.3	29.0	47	22.5	6.5	4.6	5.4	3.9
Springfield	62.0	64.2	63.8	466	77.2	6.0	7.9	3.2	5.0
Taunton	75.3	32.6	33.5	62	37.5	-- ⁵	5.9	-- ⁵	3.8
Waltham	81.7	21.0	20.5	16	7.1	-- ⁵	5.3	-- ⁵	3.9
Weymouth	87.5	13.2	16.5	19	14.3	-- ⁵	4.5	-- ⁵	4.1
Worcester	72.2	46.1	44.2	290	41.9	9.9	8.4	7.1	6.6

NOTE: All percentages are calculated based on only those births with known values for the characteristic(s) of interest, unless otherwise stated. Data on birthweight, adequacy of prenatal care, and source of prenatal care payment were not provided for approx. 1,140 resident births from Winchester Hospital.

1. The 30 largest municipalities are the cities and towns in Massachusetts with the largest populations according to DPH 2000 population estimates, based on U.S. Census 2000 population counts (see Technical Notes in Appendix). 2. Crude birth rates represent the number of births per 1,000 residents; teen birth rates refer to the number of births per 1,000 females ages 15-19. 2000 birth rates are calculated using the DPH 2000 population estimates. 3. Mothers who designated themselves as Asian, American Indian or Other. 4. For the category of Mother's Race and Ethnicity, percentages are calculated based on the state total of resident births, including births for which mother's race/Hispanic ethnicity is unknown. 5. Calculations based on fewer than 5 events are excluded. 6. Deaths per 1,000 live births.

Table 3A. Resident Birth Characteristics, 30 Largest Municipalities¹, Massachusetts: 2000

Municipality	Rank	Population	Crude Birth Rate ²	Mother's Race and Ethnicity				Very Low Birthweight (<1500 g)	Low Birthweight (<2500 g)
				Non-Hispanic White	Non-Hispanic Black	Hispanic	Asian or Other ⁴		
				% ³	% ³	% ³	% ³		
STATE TOTAL		6,349,097	12.8	73.6	7.1	11.3	7.6	1.4	7.1
Arlington	29	42,389	12.8	85.4	1.8	2.6	9.8	-. ⁵	4.3
Attleboro	30	42,068	14.8	89.0	2.6	4.5	3.7	1.8	7.1
Barnstable	25	47,821	10.1	88.6	2.9	3.1	5.0	2.3	5.3
Boston	1	589,141	13.7	35.1	30.9	21.7	12.0	2.1	9.0
Brockton	6	94,304	16.5	43.7	26.6	11.5	17.8	2.6	9.9
Brookline	17	57,107	10.8	73.8	2.3	3.6	20.0	-. ⁵	6.1
Cambridge	5	101,355	10.7	59.5	13.7	9.3	16.6	2.0	7.1
Chicopee	21	54,653	11.1	79.5	2.6	15.2	2.5	2.0	9.5
Fall River	8	91,938	12.9	84.4	5.7	5.5	4.3	1.3	9.4
Framingham	14	66,910	14.8	71.6	4.3	13.5	10.5	1.0	6.1
Haverhill	16	58,969	14.4	82.8	1.7	12.5	3.1	1.6	8.1
Lawrence	13	72,043	19.7	20.7	2.0	73.4	3.7	1.8	7.4
Lowell	4	105,167	16.7	48.2	5.3	17.9	28.5	1.5	7.7
Lynn	9	89,050	16.2	44.1	13.7	30.7	11.4	1.7	7.8
Malden	18	56,340	14.6	55.3	10.8	8.3	25.4	1.5	8.6
Medford	20	55,765	10.8	77.2	9.6	4.0	9.1	1.3	8.3
Methuen	28	43,789	13.5	78.0	-. ⁵	16.0	5.2	1.9	8.1
New Bedford	7	93,768	14.0	68.1	5.9	17.0	8.2	1.1	7.2
Newton	11	83,829	10.6	85.0	1.7	3.3	9.9	1.9	8.2
Peabody	24	48,129	11.2	87.2	1.5	6.5	4.8	1.9	6.2
Pittsfield	27	45,793	10.6	83.7	7.4	3.1	5.8	1.0	9.1
Plymouth	23	51,701	13.1	93.5	1.5	1.2	3.0	1.3	5.9
Quincy	10	88,025	13.1	68.7	4.1	2.9	22.9	1.6	7.3
Revere	26	47,283	13.3	62.4	4.3	20.2	13.1	1.1	8.4
Somerville	12	77,478	12.0	60.6	10.3	17.1	11.7	1.2	6.9
Springfield	3	152,082	16.5	32.8	20.9	41.9	4.2	1.9	9.1
Taunton	19	55,976	13.7	86.6	3.9	6.0	2.7	1.2	8.4
Waltham	15	59,226	11.5	63.9	7.3	17.0	11.8	0.7	5.6
Weymouth	22	53,988	14.0	88.1	2.5	1.6	4.1	0.9	6.9
Worcester	2	172,648	14.7	54.2	11.3	23.5	10.6	1.8	8.7



CAMBRIDGE CITY COUNCIL PRESENTATION
By the Cambridge Health Alliance (June 3, 2002)

Topic: Diversity at the Alliance

- The Cambridge Health Alliance is proud of its long history of embracing diversity in its workforce and is recognized for this commitment within the healthcare industry
- This commitment is exemplified by demographics that show that:
 - 1) One-third of the Alliance's Senior Leadership team is ethnically and racially diverse
 - 2) 26.5% of the Alliance's total workforce is ethnically and racially diverse
 - 3) at our Cambridge facilities, this percentage is even greater, 30%
 - 4) turnover for these groups does not show any adverse impact
 - 5) the average age of our workforce is 42 years of age, with 55% of our workforce over the age of 40.
 - 6) we both employ and successfully accommodate people with special needs
- Diversity in recruitment and retention is one of the key priorities of the Alliance's Workforce Development strategy
- This effort is a clear mandate of our CEO John O'Brien, and fully supported by our Senior Leadership team
- Programs and activities related to this key priority are part of my accountability as a leader at the Alliance, and Donna Bonaparte, Sr. Director for Human Resources Operation, is the other lead staff. Donna is African-American and a Cantabridgian. She has an outstanding record of success in attracting, retaining and developing diverse staff.
- A terrific example of our diversity retention effort is the STARS program, which will fund education and training for staff who are entering shortage areas in healthcare such as Nursing and Radiological technology. In exchange, the Alliance asks program recipients for a commitment to remain at the Alliance once they complete their educational programs. I am happy to say that approximately half of recommended recipients for this program are racially and ethnically diverse.
- It is my personal goal that the Alliance will become the national leader in the area of workforce diversity and we will continue to work aggressively to make this goal a reality.

VISION 2003
DRAFT

Institute for Community Health

The Institute for Community Health (ICH) will be a nationally recognized organization dedicated to health status improvement through facilitation and collaborative sponsorship of community-based research¹, assessment, dissemination and educational activities.

MISSION

The Institute for Community Health is a unique collaboration of three Massachusetts health care systems to improve the health of Cambridge; Somerville, and surrounding cities and towns. Founding members are the Cambridge Health Alliance, the Mount Auburn Hospital of CareGroup, and the Massachusetts General Hospital of Partners HealthCare. The ICH will stimulate the creation of innovative programs and health policies that will lead to measurable decreases in morbidity and mortality. To accomplish this the ICH will:

- Collaborate with community health partnerships to identify health needs and concerns.
- Conduct community-based participatory health research¹ that links academic institutions to community partners.
- Pursue research and assessment initiatives that link clinical care to public health.
- Provide community education and training by offering community-based learning opportunities for health professionals, students, and community members.
- Evaluate the efficacy of programs and policies to build sustainable models of community health.
- Assist community groups in using health information to effect change and develop action programs
- Disseminate community-specific assessment and research results to community members and local/national audiences to guide program and policy development

Core Values include a commitment to

- Understanding and respecting diverse populations as well as the uniqueness of communities
- Safe-guarding privacy
- Supporting and building lasting partnerships

¹ Community-based participatory research is a participatory process in which community assists in formulating the research questions, interpreting the results and ultimately using the information to affect change. Green, LW, Stoto, MA Linking Research and Public Health Practice: A Vision for Health Promotion and Disease Prevention Research. American Journal of Preventive Medicine, 1997: 13(6) 5-8



6.

CITY OF CAMBRIDGE • EXECUTIVE DEPARTMENT

Robert W. Healy, City Manager

Richard C. Rossi, Deputy City Manager

April 29, 2002

To The Honorable, The City Council:

In response to Awaiting Report Item No. 02-18, regarding a report on the infant mortality rate in Cambridge, Public Health Officer Harold Cox reports the following:

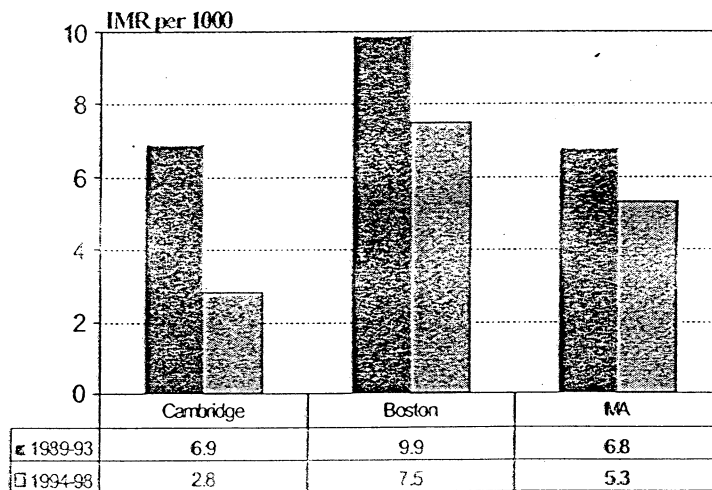
Definition: Infant mortality, death in the first year of life, is an important measure of health status. Nationally disparity in infant mortality rates between whites and specific racial and ethnic groups (including African American) persists. Nationally overall infant mortality rate has reached record low levels, but the rate for African Americans remains twice that of whites.

In Cambridge between 1994 and 1998 the Infant mortality rate was 2.75, while the rate in Boston was 7.49 and the statewide rate was 5.3. The Healthy People 2010 goal is to reduce all infant deaths to 4.5 per 1000 births.

Disparities in Cambridge. In Cambridge in 1999 and 2000 there were 4 infant deaths each of the years (total of 8). Of these 8 deaths, one child was Black.

Infant Mortality Rate

Cambridge, Boston, and MA: 1994-1998



Source: Mortality, MassCHIP v2.8 r265.0

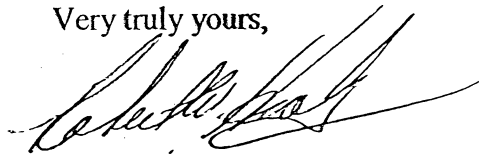
Infant mortality in Cambridge

Year	<u>Number</u>	White	Black	Hispanic	Asian
1997	3	1	1		1
1998	2	1			1
1999	4	2	1		1
2000	4	1		2	1

Infant mortality Rate by Year

Year	Cambridge		Boston		MA	
	n	IMR per 1000	n	IMR per 1000	N	IMR per 1000
1989	10	8.13	108	10.5	697	7.63
1990	9	7.48	105	10.16	649	7.02
1991	3	2.54	81	8.35	576	6.53
1992	11	9.74	98	10.57	569	6.53
1993	7	6.74	86	9.76	523	6.18
1994	2	1.82	77	9.11	499	5.96
1995	4	4.13	54	6.72	419	5.14
1996	3	3.11	56	7.26	403	5.03
1997	3	2.96	66	8.44	425	5.29
1998	2	1.93	46	5.84	414	5.09

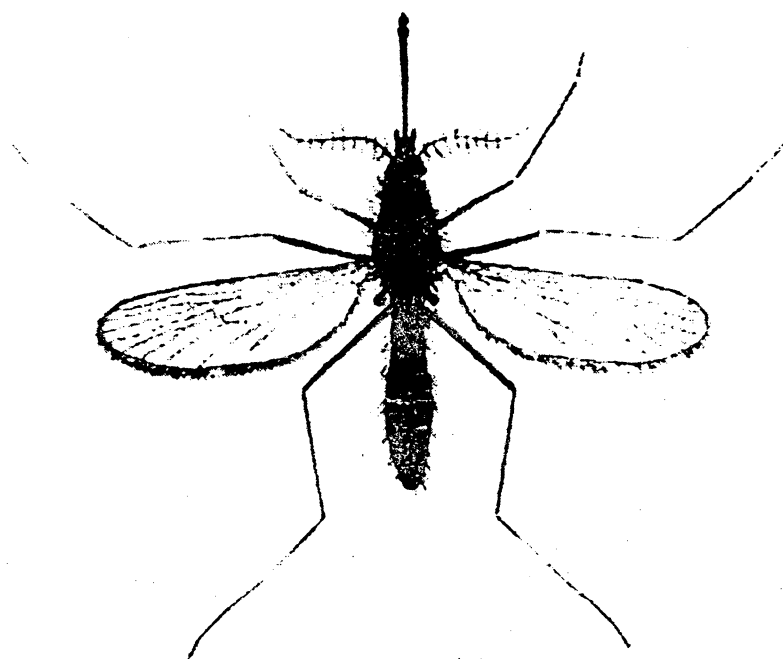
Very truly yours,



Robert W. Healy
City Manager

RWH/mec

Cambridge West Nile virus Response Plan (2001)



- WNV background and local response in 2000 page 1
- Overview of Roles and Responsibilities page 3
- West Nile Surveillance and Response Matrix page 8
- Addendum from members of advisory group page 10

Cambridge West Nile virus Response Plan (2001)

In 2000 Cambridge and other local municipalities throughout the northeastern United States responded to the public health concerns posed by the recently imported West Nile virus, an arthropod-borne Flavivirus (also known as an arbovirus) commonly carried by the *Culex pipiens* mosquito. This virus was a poorly understood and emerging threat to public health that had been known to cause seven deaths and at least 62 recorded cases of severe encephalitis or aseptic meningitis in New York City in 1999 and many more deaths during outbreaks in Europe, the Middle East and Africa. Though West Nile virus has been found in Europe and in the Middle East sporadically throughout the 20th Century, it had never previously been identified in North America. Furthermore, the great quickness with which it spread in 2000 from New York City across upstate New York and New England took many by surprise. Fortunately there were no human cases of West Nile-related encephalitis reported in New England in 2000 and fewer cases in the New York City area. There remains, however, real uncertainty in the public health and scientific communities about our ability to project the spread of this disease to humans and other mammals in the first few years after its introduction to North America.

In late July 2000 a dead bird infected with West Nile virus was found in Brookline, prior to its detection in Connecticut and elsewhere Massachusetts. Local public health agencies were pressed to make decisions about how to reduce the transmission of this virus to people without the benefit of detailed information linking surveillance data to the threat of human infection. While the Centers for Disease Control (CDC) did offer some guidance on ground spraying in the vicinity of infected dead birds, no comprehensive strategic plan was available to local decision-makers.

Some efforts were made to limit the mosquito population using preventative measures. These included the application of larvicide in the majority of storm drains in the city to prevent the progression of mosquito larvae to adulthood. Unfortunately the timing of this prevention campaign and the optimal weather conditions for mosquito growth may have made this strategy far less effective than it could be. Furthermore, the natural population peak of the *Culex pipiens* was occurring in the first two weeks of August, just as biological evidence (infected birds and mosquitoes) of the rapid proliferation of the virus in the immediate area was becoming apparent. Though Cambridge waited for two weeks after Brookline and Boston initiated spraying, a decision to ground-spray was made in mid-August to limit the immediate risk of mosquito transmission of West Nile virus to the public.

This decision to use an ultra-low volume mixture of Resmethrin/piperonyl butoxide on two occasions in 2000 to limit the adult mosquito population was based on the CDC and state health department guidance to local health agencies. Uncertainties confounding this control strategy included the degree of risk to people posed by this virus in our community, the lack of comprehensive data on the immediate and long-term health effects on animals of the chemical agents sprayed to control adult mosquitoes, and the limited information on the efficacy of ground spraying to control mosquitoes and reduce virus transmission in an urban environment.

Some of the uncertainties from last summer have been reduced. The severity and prevalence of the illnesses caused by the virus are somewhat better understood by the public health community (e.g. infection rates, ongoing consequences after major infection), the major importance of local habitat control (e.g. standing water in yards) and personal protection in limiting individual risk of

being bitten is clearer, the great concern of many residents over truck-based spraying of any pesticides has been articulated and discussed, the role of weather as a factor in mediating the mosquito population dynamics has been highlighted, and the strengths and weaknesses of truck-based spraying as a method of effectively controlling adult mosquitoes have been scrutinized.

Many other legitimate questions remain unanswered concerning the relative importance of various habitats to the mosquitoes that transmit the virus to humans and the overall effectiveness of any of the prevention and control measures under consideration in halting or limiting the transmission of the virus to humans. Furthermore, real concerns have been expressed by members of the advisory group regarding the immediate and long-term consequences of pesticide exposure on the public and the environment. Responsible decisions must be made even before all questions are fully addressed and reasonable judgments must be made with the best available information. Public candor about the nature of the threat and the limited amount of undisputed information available must be maintained. As decisions must be made throughout the season public health officials, by statutory authority, are given responsibility to formulate responses on the basis of their professional and scientific experience and knowledge.

Several steps taken since last summer to increase involvement of local residents in the planning process for this year going forward. A public forum was held on January 31, 2001 and a resident advisory group was established immediately afterwards. The advisory process reflects an effort to hear and to consider the concerns of those who have gone to great effort to communicate with the Public Health Department since last summer. While this West Nile Response Plan has not been forged out of consensus, the quality of discussion and the willingness to listen and respectfully submit opposing viewpoints has been exemplary. An opportunity to submit alternate statements on issues that remain unresolved will be given and this text will be included in the final draft without the editorial control of this department.

Beginning in 2001 the City of Cambridge will carry out a comprehensive plan to limit the risk of West Nile virus transmission by emphasizing prevention measures such as habitat control, larvicide applications in storm drains, public education, and personal protection from bites. The ultimate goals of the West Nile virus Response Plan are to prevent any serious human illness related to this virus and to make consideration of unpopular and riskier control measures (e.g. citywide ground-spraying of pesticides) unnecessary.

This plan will be presented in two parts:

- I. An outline of actions and responses that will be carried out by various City of Cambridge agencies with some guidance included within each section. Specific public information on reduction of risk via personal protection and local breeding sources will be a major part of the local response.
- II. A risk matrix indicating the public communication, public education, and control measures to be taken at each identified level of public health risk.

Overview of Roles and Responsibilities

Planning and Management of West Nile activities Public Health Department

Timeline

Hire West Nile Coordinator	April 2001
Coordination with other public health agencies	
<ul style="list-style-type: none"> • Mass DPH Planning process • Cambridge/Boston/Brookline/Newton public health department coordination meetings • Receive/review response plans from MIT, Harvard 	Oct 2000-Apr 2001 Oct 2000-June 2001 May-June 2001
Public Input into Response Plan	
<ul style="list-style-type: none"> • Public Forums • West Nile Advisory Group process • Presentation to City Manager and Council 	1/31 & 5/9/2001 2/28-5/2/2001 5/2/2001
Coordination with City departments	
<ul style="list-style-type: none"> • WNV meeting with City Manager and staff • Storm Drain Strategy Meeting with DPW, GIS/MIS, Harvard, EM Mosquito Control • Communications Strategy Meeting with Emergency Management & Emergency Communication Departments 	4/3 & 4/27/2001 4/13/2001 March 2001
<u>Habitat Control: Planning and Implementation</u>	
Public Health Department, DPW, Inspectional Services	
<ul style="list-style-type: none"> • Order and manage larvicide stock and staff training • Develop Neighborhood Ticketing plan for standing water on private property • Generate Summer Puddle Patrol plan and identify community group(s) to implement • Review reporting system for standing water via phone and internet • Manage clean-up and repair of storm drains and standing water in the public way • Manage assessment and removal of other standing water • Begin cataloging storm drains for repair and treatment status; map drains as CSO vs. storm • Map drains receiving waters (Alewife, Charles) • Larval census of storm drains (with Harvard EHS) • Identify drains to receive <i>bacillus shpaericus</i> • Identify major construction sites for regular 	Apr-May 2001 Apr- May 2001 Apr-May 2001 Apr-May 2001 Apr-Sept 2001 Apr-Sept 2001 May 2001 May 2001 May 2001 May-June 2001 May 2001

standing water inspection

- Coordinate MDC drain treatment with EMMCP (Memorial Dr, Fresh Pond Pkwy, Alewife Brook Pkwy) May 2001
- Establish Tire Collection program (tire cutter?) May 2001
- Coordinate with CDC habitat & efficacy study June-July 2001

Protection of Sensitive Habitat and Species

Efforts to consider small, low-flow bodies of water that may be negatively impacted by the use of chemical larvicides (methoprene) will be made. In Cambridge there are fewer such habitats than in more rural areas, but the Alewife and Little Rivers are two such bodies. The use of methoprene will be avoided in catch basins that are not treated (i.e. combined sewer overflow – CSO) and that empty directly into this small river system. Bacteriological (non-chemical) larvicides may be available in future years and will be considered as an alternative. The Public Health Department will confer with the Mystic River Watershed Association, the Charles River Watershed Association, and the Cambridge Conservation Commission for further identification of sensitive habitat.

Conservation Commission, Mass Pesticide Bureau (MDFA), EMMCP

- Assess sensitive habitat for special protection from heavy chemical (methoprene) loading May-June 2001
- Plan and implement spot testing of receiving waters for methoprene May-June 2001
- If ground spraying does occur, all ponds and rivers will be avoided to prevent toxicity to fish from Resmethrin and piperonyl butoxide

Surveillance and Bird Collection

Animal Commission, Public Health Department, Harvard EHS

- Establish after-hours and daytime dead bird reporting systems May 2001
- Collection of dead birds in the public way for testing (until 5 WNV-positive found/month – subject to state plan) May-Sept 2001
- Establish standardized location tagging system for submission of data to the state - subject state plan May 2001
- Collection of dead bird location data from residents on private property for reporting to Mass DPH May-Sept 2001
- Disposal of dead birds in public way (after 5 WNV-positive birds found – subject to state plan) May-Sept 2001
- Delivery of birds to the State Laboratory for testing May-Sept 2001
- Implementation of local mosquito surveillance project with Harvard EHS; Mosquito Magnet implementation May-Aug 2001
- CDC efficacy (spraying) and habitat (larvae) study June-Sept 2001

Public Education and Information

The Public Health Department shares responsibility for public education with the Massachusetts Department of Public Health and every effort is being made to compliment the functions performed by each agency.

The goals of this communication plan focus on determining multiple venues to provide:

1. General information about West Nile Virus to the Cambridge community and where to find additional information about local and state issues relating to West Nile Virus
2. Education regarding prevention and transmission, personal protection, elimination of breeding sites on both personal and community properties
3. Ongoing and timely dissemination of information about surveillance efforts and disease presence in animals and humans
4. Urgent comprehensive notification, if necessary, regarding spraying

Whenever possible, information that is developed at the state level will be used to provide consistency of information. It is hoped that having several different formats for all the information will allow people to see, hear and read the information several times.

Public Health Department

- Contact utilities (NStar, Water) to arrange info insert April 2001
- Develop West Nile web site with links to state DPH, CDC, academic, and environmental organizations May 2001
- Activate West Nile Info on CPHD line 665-3801 May 2001
- Coordinate with State Hotline May 2001
- Coordination with state public education plan May 2001
- Local public information forums - #2 May - July 2001
- Notification to populations at risk - elderly, homeless May - Sept. 2001
- Mail Drop - prevention, source reduction, where to find information, bird/water reporting May - June 2001
- Fax, mail and email of information to health care providers for distribution to patients May - June 2001
- Distribution of bird, mosquito and human surveillance info via web site, state hotline, CPHD info line, media May - Oct. 2001

The decision to spray or not to spray

Public Health Department and City Manager

The greatest hope is that we will not need to choose between spraying and doing nothing to contain an accelerated public risk of West Nile infection this summer. In the event that surveillance data (human, animal and insect) informs us that we have a high risk of human illness (or that human illness has already occurred), the health department will consider whether or not truck spraying is indicated.

The local response to this threat must attempt to balance the concerns of those who suspect that the full biological impact of these insecticides is simply not understood at this point and the fears of those who are more disturbed by the possible consequences of a life-threatening neurological illness. Other considerations certainly weigh in, as doubts about the eventual effectiveness of ground spraying are well-founded and some asthmatic or allergic individuals may experience symptoms on contact with any broadcast irritant, chemical or otherwise.

This decision must be made with a paucity of undisputed information about these risks. The insecticidal agents used (Resmethrin and piperonyl butoxide - PBO) have been examined for

toxicity in hundreds of animal studies with indications that they are among the safer pesticides in common use. Nevertheless, they remain among tens of thousands of chemicals that have not been examined as thoroughly as needed in order to justify any broad statements about their long-term safety to humans and the biological community. In short, our knowledge of these chemicals does not confer a level of certainty that should reassure us in every instance, but these chemicals have indeed studied for their toxicological properties for many years.

In the final assessment the public should expect to hear a reasoned and well-supported explanation for a decision to spray or not to spray. In the event that there is serious human illness or death that might have been prevented or limited, we need to support our choice with sound judgments. In any case we need to be clear about all the dimensions of our decision. Below are listed factors to be considered by the Public Health Department and the City Manager in making a decision.

Surveillance information:

- Increasing density of dead birds in clusters within Cambridge. The trend towards greater densities of birds has been identified by the CDC as one of the few strong indicators of risk of human infection
- Presence of any infected mosquitoes. This indicator serves as a surrogate of risk that human-biting mosquitoes have also been infected with WNV.
- Presence of infected human-biting mosquitoes (e.g. *Aedes vexans*). This measure reflects a direct risk to humans that have been bitten by these infected insects.
- Presence of a laboratory confirmed, locally acquired human case. The identification of a case of encephalitis requires laboratory confirmation that is highly specific to this virus. The long period of time between initial infection, increasing severity of symptoms, proper medical attention, and completion of the laboratory analysis at the State Lab Institute is time-consuming and may result in a 3-week lag between infection and diagnosis.

Geographic, meteorological, seasonal and demographic considerations:

- Areas likely to support large-scale breeding of mosquitoes near planned outdoor gatherings
- Wet weather likely to contribute to large mosquito populations
- Evidence of elevated WNV presence early enough in the season to allow ground spraying to have a significant impact on the adult mosquito (*Culex pipiens* and other WNV-carrying varieties) population during its population peak (July-August).
- Weather conditions that are conducive to mosquito flying activity (spraying probably will not take place with a nighttime temperature below 50 F)

Public Notification

Public Health Department, Public Info Officer, Emergency Communications, DPW

- Reverse 911 for notification of spraying as needed
- Public signage June 2001
- Media coordination local and state ongoing
- State hot line, CPHD info line, web page updates ongoing
- Recorded bullhorn message As needed

Ground-spray Implementation in targeted areas

Public Health Department, DPW, EasternMiddlesex Mosquito Control Project (EMMCP)

- Coordination with Harvard and MIT

- Generation of spray-route maps
- Manage speaker trucks and police escorts
- Schedule spraying with EMMCP
- Publicize spray route information on web site and info line
- Plan routes to avoid pedestrians
- Identify areas populated by homeless
- Identify and map No-Spray requests (if this is possible)

Pesticide Effects Surveillance (post-spray)

Public Health Department, Mass. Public Health Department

- Passive surveillance at local Emergency Departments
- Offer information on health effects to medical provider

Review of West Nile response activities

Public Health Department

- Examine successes and weaknesses of the efforts made to respond to the virus and to communicate effectively with the public
- Review emerging information on the risks and efficacy of measures taken or considered in responding to the threat posed by the virus

Cambridge West Nile Surveillance and Response Matrix

All current plans for responding to the threat posed by West Nile Virus have been included in this document. At any time that the Massachusetts Department of Public Health makes direct recommendations about spraying for adult mosquito control, the City of Cambridge will carefully consider those recommendations.

Surveillance Data

Public Information

Surveillance/Control

Assessment

Stage I Risk (Risk of WNV presence but not confirmed – WNV presence in previous year)

- Virus activity last year

- Press release emphasizing source control
- Public education
- Organized source control effort

- Assess mosquito population
- Initiate reporting of dead birds
- Testing dead birds (up to 5/mo)
- Initiate local source reduction
- Initiate larval control activities

- Intensity of prior year activity, prevalence of culex larvae, weather

Stage II Risk (WNV presence confirmed with limited bird and mosquito surveillance data)

- Identification of WNV in one or a few dead birds in Camb. OR
- Identification of WNV in one bird-biting mosquito batch (pool) in Cambridge

- As above AND...
- Public notification of WNV presence in community
- Public notification of info update resources (Info Line)

- As above AND...
- Intensify source reduction
- Initiate enhanced passive human surveillance (state contacts MDs)

- Use of adult mosquito control is not recommended following findings of a single WNV+ bird

Surveillance Data

Public Information

Surveillance/Control

Assessment

Stage III Risk (WNV presence in human-biting mosquitoes, increasing dead bird densities)

- Identification of WNV in single positive batch of mammal-biting ("bridge vector") mosquitoes **OR**
- ID of WNV in multiple batches of ANY variety of mosquito **OR**
- Increasing density of dead birds

- Multimedia press release (TV, radio, newspapers)
- Intensify local education

- As above AND...
- Intensive mosquito collection (State Lab responsibility)
- Live bird serology studies (State)
- Larval surveys for popul. & ID
- Further intensify source reduction
- Review current ground-based adult mosquito control capacity and assess ability to respond

- Evaluation of mosquito trapping and surveillance findings, assess indices of disease transmission with MDPH and adjacent local health departments

Stage IV Risk (Local human WNV case; other surveillance data)

- Laboratory confirmation of a human infection (encephalitis or or death) in Cambridge and presumed to be locally acquired
- **OR** laboratory confirmation of a human WNV infection in an adjacent community and presumed to be locally acquired **WITH** the confirmed presence of mammal-biting mosquitoes **AND/OR** the presence of infected birds **AND/OR** the presence of infected mosquito batch(es)

- As above AND...
- State public health alert for at risk areas
- Press release emphasizing personal protection, symptoms
- State notification of local health care providers and hospitals
- Intensify education
- Initiate local spray notification plan if indicated (TV, radio, billboards, flyers, reverse 911)

- Increased mosquito and bird surveillance
- Statewide active human surveillance
- Consider targeted truck spraying in areas with multiple dead birds and/or WNV-positive mosquito batches using criteria established - (Part I)
- Continued larviciding as indicated
- Continued source control as indicated

- Factors to be considered in determining whether to initiate truck-based spraying include density of WNV + birds, abundance of WNV+ mosquitoes, time of year, weather, occurrence of scheduled events near areas supporting large mosquito populations, continued assessment of indices of disease transmission with MDPH and adjacent local health departments

Stage V Risk (Multiple human WNV cases)

- **Multiple human cases** of WNV infection (encephalitis or death)

- As above AND...
- State and local recommendations to limit outdoor activities for vulnerable populations

- As above AND...
- Continued assessment of option for targeted spraying based on risk of human disease and seasonal or meteorological factors

- Continued assessment of risk of disease transmission with MDPH and health departments of adjacent communities

Addendum to the Cambridge West Nile virus Response Plan (2001) by members of the West Nile Virus Advisory Group Regarding the Use of Pesticides

Members of the Advisory Committee would like to take this opportunity to reiterate our concern about the broadcast use of pesticides as a response to evidence of the presence of West Nile virus in or near our community.

Many in the Advisory Group have concluded that broadcast spraying has not yet been shown either safe or effective. Such a showing would be required if the threat of West Nile would be countered with a vaccine, even a voluntarily administered one. Thus a sharply reduced requirement for pesticide spraying that involves involuntary exposure of the population irrespective of risk factors, possible sensitive status, or personal choice seems inconsistent at best and a contradiction to accepted public health principles, at worst.

There are persuasive reasons to believe that some people might suffer harm from exposure to resmethrin and/or piperonyl butoxide, the key ingredients of the truck-based pesticide spray used to reduce the adult mosquito population. The risks associated with the application of such toxins, although of uncertain magnitude, should be outweighed by persuasive evidence that there are greater benefits to the community and environment from use of the spray before it is applied. In our view, these arguments have yet to be made.

An important element in any such argument is the link between the application of pesticides and the prevention of transmission of disease to humans, particularly in an urban environment. A number of factors contribute to reduced effectiveness of reaching the target mosquitoes with the truck-based application of pesticides in Cambridge:

- the most prevalent local bridge-vector mosquitoes prefer birds, particularly birds at rest, of which there are few in the street and building-front areas at the time the spray is applied;
- roosting areas may be higher than the reach of the spray;
- buildings close to the street restrict the lateral spread of the spray;
- backyard roosting areas are not effectively reached because close spacing of buildings limits penetration beyond the buildings;
- the period that the spray is effective and airborne is of relatively short duration.

These views are mirrored in views of the Centers for Disease Control and Prevention (CDC) expressed in their April, 2001, report "Epidemic/Epizootic West Nile Virus in the United States: Revised Guidelines for Surveillance, Prevention, and Control." The Report notes that "ground applications are prone to skips and patchy coverage in areas where road coverage is not adequate or in which the habitat contains significant barriers to spray dispersal and penetration. " Because of these and other factors, the effectiveness of truck-based spraying in an urban area such as Cambridge will likely be significantly less than the laboratory measured effectiveness of the pesticides.

Addendum to the Cambridge West Nile virus Response Plan (2001) by members of the West Nile Virus Advisory Group Regarding the Use of Pesticides (cont.)

The prevalence of residential buildings close to the roadway not only creates a barrier to reaching backyard populations of mosquitoes, it also increases the likelihood of the pesticides reaching human and domesticated animal receptors in those intervening buildings. During the warmest summer nights, when weather conditions are best for mosquito breeding, many residents leave windows open with fans operational for ventilation, and it should not be expected that residents will keep their windows closed for entire evenings. The remaining oil-based residue on personal items may result in continued chemical exposure to residents long after the loss of effectiveness against mosquitoes.

It is also not known what proportion of mosquitoes must be affected to have a meaningful and positive effect on transmission of the disease to humans. Arguments can and have been made that adulticiding may even have the paradoxical effect of increasing risk by its effects on predators or the selection of healthier mosquitoes with longer lives. These uncertainties are a reflection of our substantial lack of knowledge about certain important facts, an ignorance which should provoke further caution.

Pesticides are chemicals specially engineered and selected because of their extreme toxicity to certain target species. However, pesticides, including all those under consideration for use against mosquitoes, also have toxic effects on non-target species, including humans, to varying degrees. Certain populations (such as children and asthmatics) are more sensitive to chemicals, so the broadcast spraying of these toxins represents a purposeful, involuntary exposure of the population to potentially serious risks, while the health benefits are uncertain.

Many of the long-term environmental effects of repeated, intensified pesticide application (which might be expected if spraying is chosen in an attempt to contain WNV), are plausible and probable. The benefits, unfortunately are not as lasting. Adulticiding only reduces the mosquito population temporarily, and the amount of the reduction in an urban setting has not been determined. Therefore, repeated applications would be necessary if this control mechanism is chosen, while the impact on the ecosystem of all the effects of the pesticides, both acute and lingering, is unknown.

Timing of the spraying is critical even in the best and undemonstrated case that it has a positive effect on disease transmission. By the time a human case has incubated the disease, sought medical attention, been successfully diagnosed (which usually takes several weeks), the process of disease transmission has already gone on for at least a month. As indicated in the Response Plan, however, prophylactic application prior to human cases is not favored either. These conditions would seem to logically exclude adulticiding as a response. The CDC, an agency that still recommends adulticiding in some circumstances, is also not optimistic about its effect, noting that "adulticiding, the

Addendum to the Cambridge West Nile virus Response Plan (2001) by members of the West Nile Virus Advisory Group Regarding the Use of Pesticides (cont.)

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application of chemicals to kill adult mosquitoes by ground or aerial applications, is usually the least efficient mosquito control technique."

Because of the potential risks of the pesticides to personal health and the environment, the lack of evidence to indicate that spraying prevents transmission of WNV to people, and the difficulty in timing a potentially effective spray campaign, we believe that spraying of pesticides, and in particular, truck-based broadcast spraying, should not be part of the WNV control plan until such time that the benefits can be demonstrated to outweigh the public health and environmental costs associated with spraying.

We understand that such a policy raises the possibility that one or more cases of West Nile encephalitis, a serious disease, could arise in our community in circumstances where no spraying for adult mosquitoes has been undertaken, despite recommendations to the contrary by others. But such cases have also arisen in communities that have undertaken vigorous and aggressive spraying campaigns. The truth is that we as yet have little understanding of the way this virus appears from year to year. The history of West Nile outbreaks in Europe and the Middle East and the behavior of similar arboviral diseases indicate that we can expect an unpredictable fluctuation from year to year that is not affected in a known way by preventive measures against adult mosquitoes. Indeed most experts believe that West Nile virus, like other diseases, has now become part of the public health landscape.

As medical science progresses, and very importantly, if the Commonwealth invests sufficient resources into gathering the required information, we may look forward to having the basis for a rational preventive strategy that is scientifically grounded. But that moment has not yet arrived. Until it does, the undersigned Committee members urge the Department of Public Health to avoid use of broadcast spraying against adult mosquitoes that may carry West Nile virus.

Sarah James, City Planning

Sheldon Krinsky, PhD, Professor, Dept. of Urban and Environmental Policy and Planning, Tufts University; Adjunct Professor, Department of Family Medicine and Community Health, Tufts School of Medicine

Monica Leon, Elementary Education, parent

Richard Levins, PhD, Professor, Dept. of Population and International Health, Harvard School of Public Health

Michael Nakagawa, Biomedical Engineering, parent

David Ozonoff, MD, MPH, Professor and Chair, Dept. of Environmental Health, Boston University School of Public Health

Allen West, PhD, Professor of Chemistry Emeritus, Lawrence University



6.

CITY OF CAMBRIDGE • EXECUTIVE DEPARTMENT

Robert W. Healy, City Manager

Richard C. Rossi, Deputy City Manager

April 29, 2002

To The Honorable, The City Council:

In response to Awaiting Report Item No. 02-18, regarding a report on the infant mortality rate in Cambridge, Public Health Officer Harold Cox reports the following:

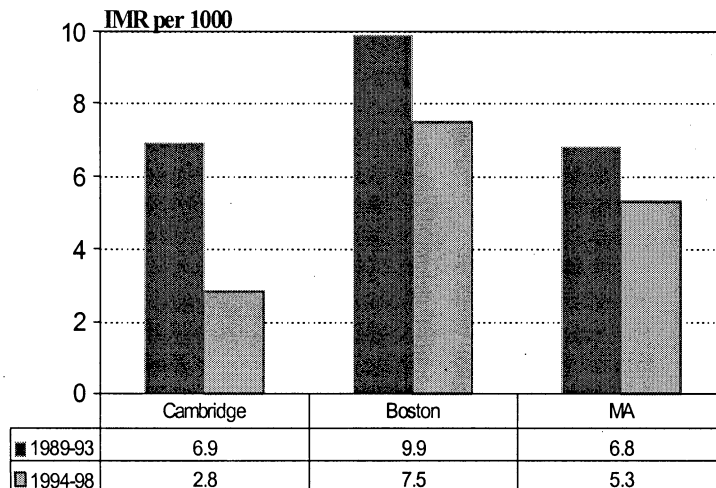
Definition: Infant mortality, death in the first year of life, is an important measure of health status. Nationally disparity in infant mortality rates between whites and specific racial and ethnic groups (including African American) persists. Nationally overall infant mortality rate has reached record low levels, but the rate for African Americans remains twice that of whites.

In Cambridge between 1994 and 1998 the Infant mortality rate was 2.75, while the rate in Boston was 7.49 and the statewide rate was 5.3. The Healthy People 2010 goal is to reduce all infant deaths to 4.5 per 1000 births.

Disparities in Cambridge. In Cambridge in 1999 and 2000 there were 4 infant deaths each of the years (total of 8). Of these 8 deaths, one child was Black.

Infant Mortality Rate

Cambridge, Boston, and MA: 1994-1998



Source: Mortality, MassCHIP v2.8 r265.0

S-173

Consent Agenda #6

**Awaiting Report Item
Number 02-18**, regarding a
report on the infant mortality
rate.

In City Council April 29, 2002

**REFERRED TO THE
JUNE 3, 2002 ROUNDTABLE.**