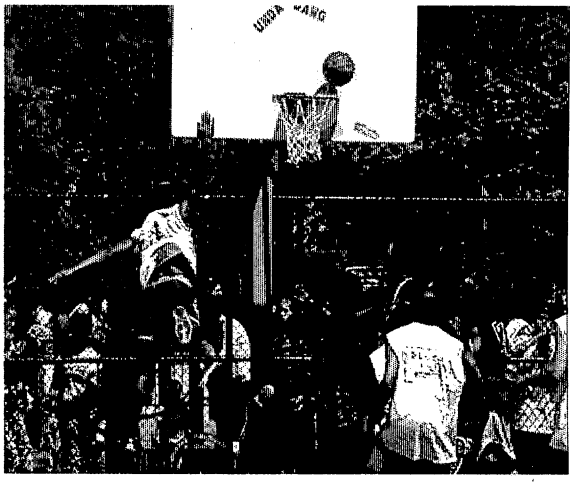

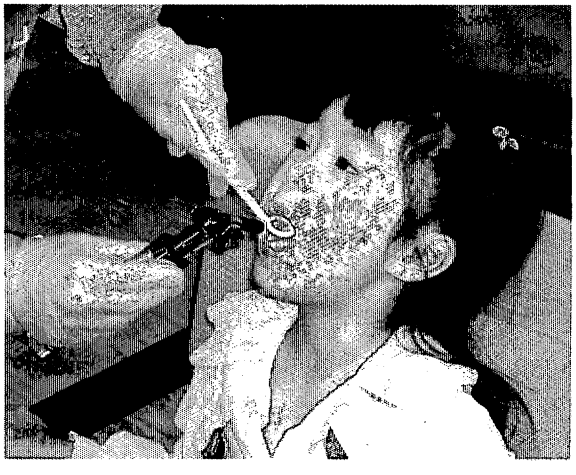

The Cambridge Health Alliance

Cambridge Public Health Assessment 2001

Cambridge Health Alliance

1493 Cambridge Street • Cambridge, MA 02139 • 617.665.2300

January 15, 2001

Robert W. Healy
City Manager
City Hall
Cambridge, MA 02138

Dear Mr. Healy,

The Cambridge Health Alliance proudly submits the Cambridge Public Health Assessment 2001. This Report from the Cambridge Health Alliance represents the fifth annual submission to the City Council and provides information on Cambridge Health Alliance and Cambridge Public Health Department programs and services.

This year's assessment provides an update of the Alliance activities over the past year as well as a summary of clinical services offered. This year, a particular focus is provided on the Reprioritization of Public Health Goals for the upcoming year.

I'd like to thank Harold Cox, our Chief Public Health Officer for his ongoing commitment to both excellent and progressive Public Health Programs. I would also like to extend special appreciation to Lynn Schoeff, Director of Community Health Programs for directing the annual Assessment process and this year bringing a new height of vision and excellence to this important document.

I hope you will again find the Cambridge Public Health Assessment 2001 a valuable resource in understanding and supporting the needs of Cambridge residents. We look forward to our continued collaboration with City Council in meeting the goals of our shared mission to improve the health of our city.

Sincerely,

John G. O'Brien
Chief Executive Officer

Cambridge Hospital Campus
1493 Cambridge Street • Cambridge, MA 02139 • 617.665.1000

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Affiliated with Harvard Medical School

Cambridge Health Alliance

This document was created by the Cambridge Health Alliance.

The information contained in this document was current as of our production date of January 15, 2001. Data presented in charts, graphs, and tables throughout this document are source-and-date-referenced and represent the most recently available data.

We encourage the reproduction of the *Cambridge Public Health Assessment 2001* for use in any form and by any organization or individual seeking to improve public health.

Please visit our website at **www.challiance.org** for online access to this document.
To receive a bound copy by mail, please call us at 617-665-3800.

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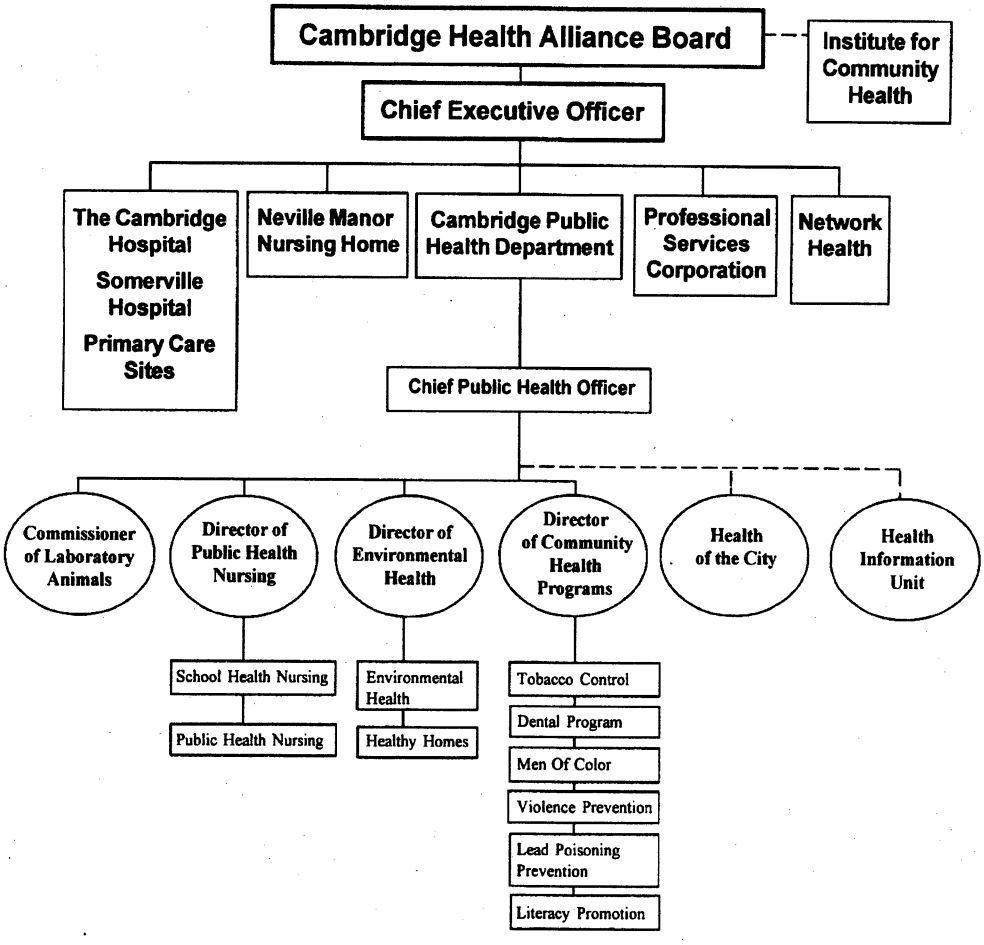
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Health Information Unit
School Health Nursing
Public Health Nursing
Environmental Health
Healthy Homes
Tobacco Control
Dental Program
Men Of Color
Violence Prevention
Lead Poisoning Prevention
Literacy Promotion

Executive Summary

The *Cambridge Public Health Assessment 2001* is the fifth annual report to the Cambridge City Council prepared and submitted by the Cambridge Health Alliance. This edition presents an overview of the clinical services at the Alliance and a summary of work in the public health priority areas.

The Massachusetts Health Care Environment

The document opens with an overview of the current political and financial environment affecting health care institutions in Massachusetts. Recent events include financial difficulties of health maintenance and insurance organizations, closing of hospitals or hospital units, emergency room diversions, and cuts or shortfalls in Medicare and Medicaid. Despite the many environmental trends adversely affecting other hospital systems, the Cambridge Health Alliance has been proactive in overcoming many barriers caused by the current healthcare climate.

Section 1: Cambridge Health Alliance: Who We Are

The Cambridge Health Alliance has a unique health delivery model that combines clinical care, public health services, long-term care, and health care financing under one administrative umbrella. The Alliance has received many accolades for this model. The section includes detailed information about the roles and functions of the Public Health Department, which provides a comprehensive range of services. The section also describes the governance structure of the Cambridge Health Alliance.

Section 2: Cambridge Public Health Department Priorities

During 2000, the Cambridge Public Health Subcommittee identified new public heath priorities for Cambridge. This process allowed both the subcommittee and staff to review past and current programs and to focus the future work of the Cambridge Public Health Department. The new priorities are:

- Mental Health and Youth
- Asthma and Indoor Quality
- Obesity Prevention and Physical Activity
- Access to Health Care, including Outreach
- Health of Men of Color

Section 3: Priority Areas

This section summarizes the health priorities set by the Cambridge Public Health Subcommittee in 1997. The Cambridge Public Health Assessment 2001 provides an in-depth look at the status, programs and progress of these priorities. This is especially fitting since the subcommittee established new health priorities in November 2000. This edition provides extensive quantitative information about epidemiological trends and shows how Cambridge compares with national health objectives set by *Health People 2010.*

Access to Health Care

The Alliance strives to address physical, cultural, and financial access to health care. With the opening of the new ambulatory building at The Cambridge Hospital, the Alliance has taken a major step to expand and upgrade facilities at the main campus. This new facility will accommodate more than 100,000 patient visits a year. Additional renovations will continue through 2001.

The Alliance has adopted a new patient scheduling system called "Open Access," that allows patients to see their health care providers for routine or problem visits on the same day or within 72 hours of their request for an appointment. Early feedback about the system indicates increased patient satisfaction. Additionally, staff members note improvement in the predictability of patient flow and a decrease in no-show rates.

The Alliance provides several innovative home-visiting services, enhancing home-based care and health education as well as supporting links to community resources. These include Newborn Home Visiting, House Calls for frail elders, and Healthy Homes for families of children with asthma.

The Children's Dental Program provides dental education, screening, and referrals to elementary and preschool children in Cambridge. Through this program, children who are most in need of dental treatment are identified and referred for care. The program assists families with referrals, and with scheduling dental appointments for their children. Saturday sessions have been added at the Windsor Dental Clinic to increase access.

The Cambridge Health Alliance has partnered with Neighbors for a Better Cambridge, and Cambridge College to launch a college-based interpreter training program. The year-long program is geared primarily for immigrants, and is one of the few college-based medical interpreter training programs in the country.

The Alliance continues to provide extensive interpreter services for its patients. The Interpreter Services Department responded to over 45,000 requests for interpreters between January and October 2000.

Network Health, the non-profit Medicaid managed care program of the Alliance, has increased membership to over 20,000 as of December 2000.

Violence Prevention

In the past few years, violence has declined in Cambridge, reflecting a statewide trend. Homicide, violent crime, and violence-related injury rates in Cambridge are lower than those in many other communities and lower than the state averages. Violence prevention activities in Cambridge have largely focused on domestic violence. With the driving force of the Domestic Violence Free Zone implementation plan developed in 1996, work has concentrated on training the city's work force. In previous years, training was provided to the Cambridge Housing

Authority, the Police and Human Service Departments. The training focuses on awareness of domestic violence, knowledge of community resources, and screening for domestic violence. In 1999-2000, a comprehensive training program was provided to key staff in the Cambridge school system and training was instituted for the clinical workforce of the Cambridge Health Alliance.

Environmental Health

The Cambridge Public Health Department coordinates a variety of programs intended to protect residents from environmental health threats associated with physical, chemical and biological agents. As one component of the network of programs, the Environmental Health Unit responds to a range of concerns. During the past year, these concerns have focused on hazardous waste sites, the Charles River, drinking water, indoor and ambient air quality, and asthma. Managing West Nile Virus was one particularly challenging issue in 2000. After substantial efforts to limit the size of the mosquito population, the decision was made to spray the city with a mild pesticide. This decision raised considerable controversy about the efficacy and safety of spraying, as well as effectiveness of emergency communications within the city.

HIV/AIDS

Despite major advances in treatment, the AIDS epidemic continues to represent one of the most significant threats to human health in modern history. There have been 413 people diagnosed with AIDS in Cambridge as of November 2000. The rate of infection among Blacks and Hispanics is higher than for Whites. A similar disparity is noted throughout the state and nation. Cambridge is fortunate to have an extensive array of services to address the needs of those with HIV/AIDS, as well as extensive prevention activities. Most noteworthy is the needle exchange program operated by Cambridge Cares About AIDS which serves over 250 people each month. In 2000, several new initiatives were added to educate, screen, and immunize for hepatitis A and B, and educate about hepatitis C.

Substance Abuse

The harmful and negative health effects of alcohol and drug abuse are an immense burden on the community. For example, 15% of students reported that they attended class within one hour of using alcohol, marijuana, or other drugs at least one time during the last 30 days. In Cambridge, 1,100 hospitalizations are due to substance abuse related illness. Cambridge is fortunate to have a variety of substance abuse prevention and treatment services; however, additional treatment opportunities are still needed.

Health Promotion and Disease Prevention

The Alliance has a multitude of health promotion and disease prevention activities, including school health nursing, communicable disease prevention and control, health education, and policy development. Health of the City and the Health Information Unit provide leadership in research, program development, and evaluation. Additionally, the Cambridge Public Health Department led or participated in many public events that emphasized health promotion.

Some of these included Cambridge Walks, Health and Wellness Program, Gospel Health Fest, Hoops 'n' Health, and Women's Health Day.

Section 4: The Cambridge Health Alliance Clinical Services

This section provides an overview of the clinical activities at the Cambridge Health Alliance. The Alliance provides an extensive range of medical, psychiatric, and surgical services in the inpatient unit and over 20 primary care sites in Cambridge and Somerville. The section includes the number of patient visits, discharges, and deliveries for fiscal year 2000, and projections for fiscal year 2001. Of particular note is the new Women's Health Center, which focuses on enhancing quality of care for women throughout the system. Also noteworthy is the new Ambulatory Care Center on the main campus of The Cambridge Hospital.

THE MASSACHUSETTS HEALTHCARE ENVIRONMENT

YEAR 2000 IN REVIEW

In 2000, pressing health care issues were in the news nearly every day. This is not surprising given that healthcare in the Commonwealth of Massachusetts is a $16.2 billion force in the state's economy — a figure that includes jobs, government funds, private grants, medical education payments, and other dollars. Approximately one in seven employees in Massachusetts works in health care. Medical research brings several million dollars into the state's economy each year. The amount of research dollars flowing into Massachusetts is four times greater than in any other state.

At the same time, Massachusetts has been hit hard by shrinking financial resources, including cuts in Medicare from the Balanced Budget Act, Medicaid funding shortfalls, and threats to the uncompensated care pool, accompanied by a financial squeeze brought on by private insurers, particularly health maintenance organizations. This is occurring at a time when costs are rising for prescription drugs, technology, and labor associated with delivering premier health care. In addition, the health care system is strained by an aging baby boomer generation that is putting unprecedented demands on all health care services.

It is fair to say that health care in Massachusetts is in a state of crisis that has affected hospitals, nursing homes, ambulatory health centers, emergency departments, home care agencies, and physicians' offices.

Health Maintenance Organization Woes

Local HMOs are experiencing severe financial problems, affecting both members and providers. Harvard Pilgrim Health Care fell into receivership in the early months of 2000 and Tufts Health Plan's drawn-out contract negotiation with Partners Healthcare, both made front-page news. In general, HMOs are consolidating operations, limiting benefits, and eliminating unprofitable lines of business including senior plan product lines. Medicare HMOs in Massachusetts have drastically limited their prescription drug coverage, reduced reimbursement rates to area physicians and acute care providers, and some are considering leaving the market altogether.

Hospital Closures and Consolidations

Financial pressures have taken a toll on hospitals in Greater Boston. In the past year, several regional providers have eliminated key services. During the previous year, changes made at Malden Hospital (conversion to an outpatient facility), Boston Regional Medical Center (bankruptcy and discontinuation of acute care services), and Quincy Hospital (acquisition by Boston Medical Center) were followed by announcements in 2000 of the elimination of programs and services (Beth Israel Deaconess Medical Center), primary care physicians being laid off

(New England Medical Center), and threats of hospitals closing (Hallmark Health System's Whidden Hospital). On December 13, 2000, a report in *The Boston Globe* indicated that 20 hospitals in Massachusetts had filed requests for more than $35 million from a relief fund established by the state legislature for "distressed hospitals" in danger of no longer being able to provide vital community services. The requests, more than three times the amount set aside, are a signal that hospitals may have to further eliminate services, or in some cases, shut down altogether. In many instances, the services are the very ones that serve the disenfranchised in our society.

Overall, most Massachusetts hospitals are continuing to see their operating margins decline. According to a Massachusetts Hospital Association quarterly survey of 58 hospitals, the average hospital operating margin dropped for the first three quarters of FY2000 to –2.3% from –1.6% in the same period last year. While there was a slight increase in the overall statewide operating margin, 57% of hospitals reported that their margin had declined. As was the case last year, 62% reported operating deficits. Hospital operating margins have been negative for 15 consecutive quarters.

Massachusetts' Healthcare Safety Net

It is estimated that despite a strong national and local economy, over one quarter of the Commonwealth's six million residents depend on Medicaid and the uncompensated care pool. Plans are currently underway to increase support for these programs, and begin the process to design new longer-term financing systems. Increased enrollments in MassHealth, the state's Medicaid program, have helped reduce the number of uninsured individuals and families. Mirroring difficulties in the private managed care market, however, eight or nine HMOs have pulled out of the Medicaid market, leaving a handful of managed care organizations for MassHealth recipients. In addition to the state's own managed health care program, Neighborhood Health Plan, HealthyNet (Boston Medical Center), Fallon, and Network Health are the only managed care organizations left for MassHealth recipients. Network Health, founded by the Cambridge Health Alliance, currently has 20,000 members.

The Cambridge Health Alliance, along with the Massachusetts Hospital Association, has been involved in crafting policies and legislation to stabilize the uncompensated care pool. Under consideration is legislation to increase the state's share in 2002 to $130 million, reducing hospitals' current disproportionate contribution to approximately one third of the total. In Massachusetts, the Alliance is the second largest recipient of uncompensated care pool dollars.

Emergency Room Diversions

Another symptom of a health care system under stress is high level of emergency room diversions, or the number of hours that emergency rooms must direct patients to other hospitals. These diversions have been a problem across the nation for several years, but appear to have worsened over the last year. Boston area hospitals reported a high number of hours when their emergency departments were temporarily closed, with the high being 871 hours over a nine-month period from January 2000 through September 2000. The need for diversions is attributed to a lack of beds and a labor shortage at particular hospitals as well as recent reductions in home health visits, nursing homes, and mental health programs, where patients without access to these critical services often end up in the emergency department. Long wait times have led to poor patient satisfaction levels. During shutdowns ambulances are diverted to nearby hospitals.

Changing Demographics

The City of Cambridge continues to experience demographic shifts that will likely affect the demand for health care services over the next several years. Among the most significant changes in the city are rising property values and the elimination of rent control, and likely increases in the average income level. Declining public school enrollments may be reflective of some of these trends. There has also been a continued influx of culturally diverse populations, including Southeast Asians and Portuguese speakers. A better understanding of the changing face of our community is likely to come from the 2000 Census.

Hope on the Horizon

In spite of a financial crisis, Massachusetts' providers have been working on multiple fronts to tackle many of the critical issues affecting hospitals nationwide. In Cambridge, the level of diversions from The Cambridge Hospital's emergency department was lower than the City of Boston's and other community hospital counterparts.

Recently released results from a hospital patient satisfaction survey showed that Cambridge Health Alliance's score surpassed that of 35 other community hospitals surveyed, a score that also indicates the most improved performance of any community hospital from the previous year.

Despite the many environmental trends adversely affecting other hospital systems, the Cambridge Health Alliance has been proactive in overcoming many barriers caused by the current healthcare climate.

- **Programs for multilingual populations**: For members of the communities who speak a language other than English, the Alliance offers medical interpreter services in 33 languages. To meet the growing demand for this service, the Alliance also recently established an education program for medical interpreters in collaboration with Neighbors for a Better Community, Inc. (NBC, Inc.) and Cambridge College. This program, which trains local

residents for jobs, follows landmark legislation by the Massachusetts State Legislature requiring competent interpreter services in all Massachusetts' acute-care emergency medical and mental health facilities by July 1, 2001.

- **State-of-the-art facilities and technology:** After nearly ten years of planning, with extensive neighborhood involvement, the Alliance recently opened a 60,000-square foot Ambulatory Care Center at The Cambridge Hospital campus. This beautiful new facility houses—along with a number of other important services—the new 9,000-square foot Emergency Department with a private pediatric treatment section, and express care services that offer more rapid and efficient treatment of minor medical problems.

- **Open Access or same-day appointments**: The Alliance listened when patients suggested that they would like to see shorter wait times for appointments to their doctor. Today, at more than 16 sites, Alliance clients have the option to make a "same-day" visit to their primary care physician when *they* think it is appropriate.

Finally as the new millennium approaches, the Alliance is finding a new sense of energy and direction as it prepares to make the choices and changes that will secure its place and prominence as the nation's premier public health system.

Section 1: The Cambridge Health Alliance: Who We Are

The Cambridge Health Alliance (The Alliance) is an innovative network of hospitals, community health centers and community-based programs that includes The Cambridge Hospital and Somerville Hospital, Neville Manor Nursing Home, the City of Cambridge Public Health Department, the Network Health Plans and more than twenty primary care sites throughout the neighborhoods. Together, the Alliance forms an integrated system that provides a comprehensive range of preventive, ambulatory, acute, and post-hospital services.

Premier healthcare services are delivered to individuals and families in Cambridge and Somerville including high-risk, underserved and low income or underinsured residents. The patient base is culturally and linguistically diverse: 45% of Alliance patients speak a primary language other than English.

The Alliance is also a teaching affiliate of the Harvard Medical School and Tufts School of Medicine and is affiliated with both Partners Healthcare and CareGroup network providers. The Alliance has received national recognition for its excellence in healthcare innovation and community service. In 1993, the Alliance received the Foster G. McGaw Prize, which is the hospital industry's highest recognition for community excellence. John G. O'Brien, CEO, was awarded CEO of the Year in 1994 by the American Hospital Association, as well as a Massachusetts Health Council Award in 1998, for his outstanding contributions to the advancement of community health.

The Cambridge Health Alliance maintains a unique relationship with the City of Cambridge. Through a home rule petition, the Alliance became a public authority. (The corporate name of the institution is the Cambridge Public Health Commission.) The Cambridge Public Health Department, operated by the Alliance, provides all public health services to Cambridge, as it did when it was a city department.

The Cambridge Public Health Department exercises its statutory authority under Massachusetts public health laws (MGL Chapters 111, 112 and 114) within the City of Cambridge. John O'Brien serves as the Commissioner of Health, and delegates the department's operations to Harold Cox, Chief Public Health Officer. The Public Health Department is advised by the Cambridge Public Health Subcommittee, the Joint Public Health Board, and the City Council's Health and Environment Committee. The Public Health Department works collaboratively with the city manager, City Council, the School Committee, and all city departments.

As a result of a Memorandum of Agreement signed in 1983 by the commissioner of health and hospitals and the inspectional services commissioner, the Inspectional Services Department assumes responsibility for several major categories of public health code enforcement. These functions include housing inspection, restaurant inspection, construction-related nuisances, and other specific violations of the state public health code. The Public Health Department assists and supports these code enforcement duties as needed and pursues enforcement actions and investigations that are not explicitly stated in the public health code. In particular, concerns about harmful chemical or biological exposures are frequently referred to the Public Health Department. The Public Health Department retains the final authority to adjudicate all public health threats allowed under state law.

Public Health Department programs:

Environmental Health Unit

The Environmental Health Unit monitors the broad range of human health outcomes that result from exposures to various environmental agents. The Healthy Homes Project is in this unit.

Public Health Nursing and School Health Nursing, including

TB clinic, flu clinic, communicable disease registry and case management, Newborn Home Visiting Program, vaccine distribution, and health education for individuals and businesses. Provision of clinical health services in public schools and consultation for non-public schools.

Community Health Programs, including

Childhood lead poisoning prevention; Children's Dental Health Program; domestic violence prevention; tobacco education and control; Men of Color Health Project; Agenda for Children; and the Cambridge student health surveys

Health of the City

Health of the City programs are dedicated to improving the health of Cambridge residents through community-based health promotion and disease prevention activities. Health of the City is currently focused on 1) promoting physical activity and healthy eating, 2) mental health, and 3) asthma.

Health Information Unit

The Health Information Unit compiles, collects, analyzes, and reports data that describes the health of Cambridge residents and measures progress toward community health improvement.

Laboratory Animal Commission

Laboratories located in Cambridge that conduct experiments on live animals are inspected by the commissioner of laboratory animals, a licensed veterinarian.

Licenses and Permits, including

Massage therapy licenses, recombinant DNA, burial permits, and permits to allow smoking in restaurants.

The newest innovation of the Alliance is the Institute for Community Health. The Institute is a collaboration among the Alliance, CareGroup, and Partners Healthcare Systems to improve the health of communities through research, education, and program and policy development. The Institute for Community Health provides a structure for critical thinking, learning, and resource development, and strengthens the affiliated health care institutions and their communities. Health research and programmatic activities will be focused on Cambridge, Somerville and surrounding communities. Accomplishments and lessons learned will be available to founding institutions and disseminated nationally. These activities will ultimately be sustained through external funding sources. The initial goals for the Institute are:

- To advance community health research
- To advance community health education and training
- To advance community action programs and policy
- To advance the understanding of the dynamics and linkages

Governance

The Cambridge Health Alliance is supported through a governance structure that provides policy oversight to each part of the system.

I. **The Cambridge Health Alliance Board**, chaired by Richard deFilippi, PhD, is responsible for:

- Ensuring the continuous delivery of quality health care to the residents within the Alliance service area
- Coordinating outreach, health education, prevention, outpatient, home care, emergency, inpatient, specialty, aftercare, rehabilitation, and long term services to create a comprehensive and integrated continuum of care to promote health and well being in the Alliance service area
- Educating physicians and caregivers

Standing committees of the Alliance Board include the Joint Hospital Board, the Joint Public Health Board, the Professional Services Corporation Board, and the Neville Manor Board.

A. **The Joint Hospital Board**, chaired by Elaine DeRosa, is responsible for:
   - serving as the governing body of The Cambridge Hospital and Somerville Hospital

This board has two subcommittees: Credentials and Quality Improvement

B. The Joint Public Health Board, chaired by Jack Hamilton, is responsible for :

- Assessing community health status for Cambridge and Somerville and availability of resources to meet identified needs
- Developing policy to support proposals that encourage better health through resource allocation and advocacy
- Assuring that needed services are available through the Alliance and community partnerships

Subcommittees of the board include the Geriatrics Task Force, the Women's Health Task Force, the Cambridge Public Health Subcommittee, and the School Health Task Force.

The Cambridge Public Health Subcommittee, chaired by Carol Cerf, is responsible for:

- Identifying public health priorities for the city of Cambridge
- Advising the work of the Cambridge Public Health Department

C. The Neville Manor Board, chaired by Neil Rosenburg, is responsible for :

- Monitoring operations, reviewing financial and other operating indicators, approving operating and capital budgets and providing financial stewardship

D. The Professional Services Corporation Board, chaired by Richard DeFilippi, PhD, is responsible for:

- Providing financial, organizational and administrative oversight of the corporation's business activities and properties

E. Institute for Community Health Board, chaired by Jeannette Clough, is composed of three representatives from each of the sponsoring organizations—Cambridge Health Alliance, Partners Healthcare Systems, and CareGroup. The board is responsible for:

- Providing financial, organizational, and administrative oversight of the Institute
- Developing the research agenda for community health improvement

Section 2: Cambridge Public Health Department Priorities

INTRODUCTION

For the past two decades, the U.S. Department of Health and Human Services has led a national planning process known as the Healthy People initiative. This ambitious project was designed to monitor the health status of the American people over time and provide a set of benchmarks to measure the progress of public health efforts throughout the country.

The 1979 landmark publication *Healthy People: The Surgeon General's Report on Health Promotion and Disease Prevention* was the culmination of extensive work by a broad range of health experts. This report, and its sequels *Healthy People 2000* and *Healthy People 2010,* identified ten-year health objectives for the country.

Along with national health objectives, *Healthy People* has identified standards of measurement, or *indicators*, to measure progress toward better health for all people.

The Cambridge Public Health Department, along with public health organizations throughout the country, will be using the *Healthy People 2010* indicators and objectives as markers to measure our progress toward a healthier Cambridge.

CAMBRIDGE PUBLIC HEALTH PRIORITIES

The Cambridge Public Health Subcommittee, a committee of the Joint Public Health Board, is responsible for identifying public health priorities for Cambridge and advising the Cambridge Public Health Department on policy development and other aspects of its work.

Early in 2000, the Cambridge Public Health Subcommittee members and management team embarked on an aggressive recruitment campaign, resulting in the addition of eleven new members. This effort transformed the board into a vibrant, active, and representative group. The board, meant to be representative of the Cambridge community, consists of community activists, public health professionals, and representatives of community-based organizations who are diverse in terms of race, sex, sexual orientation, and age.

The new subcommittee's first task was to revisit the public health priorities that had been set in 1998 and align them with the national health priorities identified in *Healthy People 2010.*

1992

The task of identifying priorities and focusing the work of the health department is a fluid and ongoing process. Using a nationally recognized model called Assessment Protocol for Excellence in Public Health (APEX-PH), the subcommittee and the health department staff identified sixteen health priorities in 1992:

1. Violence
2. Immunization of preschoolers under age two/primary care for preschoolers
3. HIV/STDs
4. Prenatal Care
5. Substance Abuse
6. Teen Pregnancy
7. Elder Care
8. Men of Color
9. Hunger
10. Health Education
11. Tuberculosis
12. Lead Poisoning
13. Mental Health Care
14. Health Data
15. Access to Abortion
16. Dental Caries in Children

While some priorities were already part of our ongoing, mandated work (e.g., school health and communicable disease control), others were identified for the first time as public health priorities in Cambridge. The impact was significant, most notably in the areas of violence prevention, immunization of children, teen pregnancy, and dental health of children. Resources were allocated to each of these areas, which led to new programs and major accomplishments.

1998

In 1998, re-evaluation and further refinement of the priorities was accomplished through collaboration with the Joint Public Health Board and the Cambridge Public Health Subcommittee along with insights from community partnerships (e.g., Health of the City and Somerbridge). This work facilitated direction setting and action to address community health needs in six areas:

- Violence Prevention
- Access to Health Care
- Substance Abuse
- HIV/AIDS
- Environmental Health
- Health Promotion and Disease Prevention

In the 1998 *Assessment* we emphasized that these major areas represent merely a partial list of health issues that were vital to a healthy community. We wrote:

> The complexity of social and personal health cannot be reduced to a few items, nor can the entire range of factors that affect health. A web of several individuals and institutions make up a healthy community, and we are fortunate to have such a well-functioning system in Cambridge. Priorities should evolve as needs change. Many issues are not mentioned because the level of effort and resources are sufficient to maintain positive outcomes, because great strides have been made in addressing the issue, or both.
>
> To develop a systematic plan, involve broad sectors of the community, and measure our effectiveness at meeting the challenges inherent in these issues, it is necessary to prioritize a shorter list of very important areas of health and disease reduction.

The 2001 Cambridge Public Health Assessment is the last in a series of assessments that report on the six priorities identified in 1998. With a great sense of accomplishment we will restructure our work around the priorities established by the Cambridge Public Health Subcommittee in 2000.

2000

In spring 2000, the Cambridge subcommittee and public health leadership began the process of setting new priorities for the department. Each of the six health issues identified earlier was presented in some detail at board meetings. Additional areas of importance identified by staff or board members were also presented: immigrant health; men of color; gay, lesbian, bisexual, and transgender health; and obesity and physical activity.

A presentation regarding *Healthy People 2010* prepared the board for the next step in identifying the priorities in Cambridge. *Healthy People 2010* identifies priorities by topic, rather than by population and requires that we examine disparities among subpopulations within each priority. Population-based disparities are examined in the following categories: gender; race or ethnicity; age; education or income; geography (rural v. urban localities); and sexual orientation.

The Cambridge Public Health Subcommittee looked at issues most important to our community and chose to consider health issues *and* population groups equally as possible priorities.

Between October and November the board reviewed our current areas of concern, *Healthy People 2010,* and the correlation between the two. The subcommittee also considered the work being done by the Cambridge Health Alliance in the areas of women's health and geriatrics as well as the work of other community agencies in the field of substance abuse and HIV/AIDS. Understanding our collaborative relationship to those programs helped us to determine where to focus the energy of the health department.

The completion of this prioritization resulted in the selection of five areas of concentration that will help to shape the work of the Cambridge Public Health Department for the next three years:

1. Mental Health for Youth
2. Asthma and Indoor Air Quality
3. Obesity Prevention and Physical Activity
4. Access to Health Care, including Outreach
5. Health of Men of Color

It is expected that this important work will provide an infrastructure for both developing and evaluating programs and policies that support the health of the Cambridge community.

As always, our work will not be limited to these priority areas. The critical work on environment, immunization, domestic violence, and dental health will continue. Efforts to improve access to health care will address other population groups in addition to men of color. These priorities will guide us to reallocate or provide additional human and financial resources in the selected areas in order to move these important health issues forward.

However, before we move onto these newly identified areas, let us review the work of 2000.

Section 3: Priority Areas

CHAPTER 1: ACCESS TO HEALTHCARE

INTRODUCTION

"Access to health care" refers to the presence or absence of various barriers to seeking or receiving health care. Beyond this broad definition, however, the phrase "access to health care" has assumed a variety of meanings within the different health care professions.

"Access to health care" can mean *physical* accessibility, and includes such factors as location, hours of operation, and physical barriers to people with limited mobility. Physical accessibility may include adequate parking and convenient public transportation. It may also address the issue of whether a given area has a sufficient number of health care providers and facilities. Strategies to reach beyond the traditional medical office may include outreach efforts and community events.

"Access to health care" can also refer to *cultural* inclusiveness. Cultural accessibility is necessary to eliminate disparities by easing the way for people who are less able or less likely to use existing health services. A health care system that is accessible to a multicultural, diverse community should employ staffing that reflects the linguistic, ethnic, racial, and cultural composition of the community. Such a system stresses characteristics that inspire confidence among its patients, such as a warm and inviting atmosphere, and friendly staff who are sensitive to the cultural, physical, and emotional needs of patients and patients' families. A culturally inclusive health care system also provides opportunities to hear voices of community members through advisory and focus groups.

"Access to health care" is also defined in *financial* terms. Financial access means health care is affordable and individuals have adequate insurance coverage. It means people without health insurance have other options to pay for or receive health care. Financial accessibility is enhanced when a health care institution accepts a wide variety of insurance, assists eligible patients in applying for coverage, and provides free care.

The Cambridge Health Alliance broadly defines "access to health care" to include physical, cultural, and financial accessibility. In this chapter, we report on facility upgrades and expansion, on particular services (e.g., dental, mental health), on programs designed to improve health care utilization among specific population groups (e.g., men of color, immigrants, homeless individuals, teens), and on efforts to elicit the voices of Cambridge citizens regarding their health concerns.

INDICATORS OF ACCESS TO HEALTH CARE

How does the Alliance measure access to health care, particularly given the wide-ranging definition of "access"?

The Cambridge Health Alliance measures access to health care by analyzing patient utilization of services, through feedback mechanisms such as focus groups and surveys, and contacts made through outreach efforts. In addition, the Alliance refers to *Healthy People 2010* indicators and objectives that are relevant to Cambridge to measure local progress.

Standard indicators of access to health care include health conditions that can be prevented through primary health care. One frequently cited indicator is the proportion of low birth-weight infants in a given population since this is a condition that is preventable through early and consistent prenatal care. (See graph, "Percent of Women Receiving Adequate Prenatal Care," page 21)

Following are some *Healthy People 2010* indicators that are relevant to public health in Cambridge. Data or discussion about these indicators can be found in this document as indicated.

Children:

- Proportion of children who have untreated dental disease (page 29)
- Proportion of kindergartners who are fully vaccinated (pages 87-88)

Adults:

- Proportion of preventable hospitalizations (page 19)
- Proportion of pregnant women who begin prenatal care in their first trimester (page 21)

Elderly Adults:

- Number of preventable hospitalizations for bacterial pneumonia (page 19)
- Proportion of elderly adults who receive a flu vaccine (page 91)

Cultural Access:

- Multilingual capacity of the health care system (pages 32-33)
- Racial and ethnic representation in the health professions (page 35)

Financial Access:

- Number of people in a given population who have health insurance (page 37)
- Number of eligible Massachusetts residents enrolled in MassHealth (page 20)
- Number of eligible Massachusetts residents enrolled in Network Health (page 36)

LEADING PREVENTABLE HOSPITALIZATION CONDITIONS BY AGE GROUP

CAMBRIDGE RESIDENTS, 1994-98

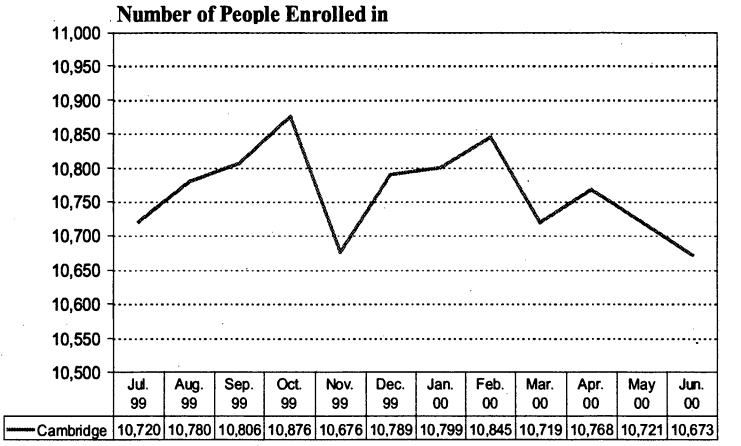
Age Group	Condition	Number	%
0-5 years	Asthma	125	31
	Dehydration	65	16
	Bacterial Pneumonia	51	13
	Kidney/Urinary Infection	46	12
	Other	111	28
	TOTAL	398	100
6-17 years	Asthma	107	47
	Bacterial Pneumonia	24	11
	Kidney/Urinary Infection	21	9
	Cellulitis	17	8
	Other	57	25
	TOTAL	226	100
18-64 years	Bacterial Pneumonia	373	17
	Cellulitis	253	11
	Congestive Heart Failure	220	10
	Asthma	227	10
	Kidney/Urinary Infection	203	9
	Chronic Obstructive Pulmonary Disease (COPD)	167	8
	Diabetes	165	7
	Angina	70	3
	Other	537	24
	TOTAL	2215	100
65+ years			
	Congestive Heart Failure	1232	28
	Bacterial Pneumonia	879	20
	Kidney/Urinary Infection	543	12
	COPD	500	11
	Dehydration	362	8
	Cellulitis	204	5
	Diabetes	155	4
	Asthma	153	3
	Angina	123	3
	Other	273	6
	TOTAL	4424	100

Preventable hospitalizations are for selected diagnostic conditions that, if treated and properly managed in an ambulatory care setting, can potentially be avoided. See Preventable Hospitalizations in Massachusetts, January 1994, a report of the Massachusetts Division of Health Care Finance and Policy.

Source: Uniform Hospital Discharge Data Set/Mass. Division of Health Care Finance and Policy, 1994-98.

MassHealth (Medicaid) Enrollment by Month

Cambridge: 1999–2000



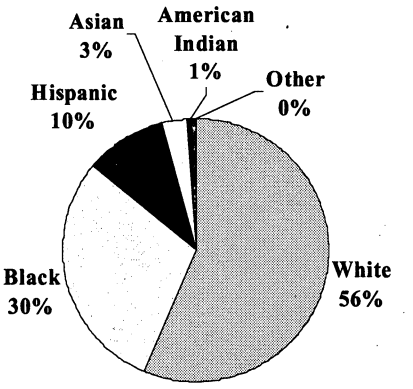
	Jul. 99	Aug. 99	Sep. 99	Oct. 99	Nov. 99	Dec. 99	Jan. 00	Feb. 00	Mar. 00	Apr. 00	May 00	Jun. 00
Cambridge	10,720	10,780	10,806	10,876	10,676	10,789	10,799	10,845	10,719	10,768	10,721	10,673

Source: Commonwealth of Massachusetts Division of Medical Assistance, 07/20/2000

More than 10,600 Cambridge residents were enrolled in MassHealth between July 1999 and June 2000. Enrollment peaked in October 1999 with 10,876 residents in the program.

MassHealth (Medicaid) Enrollment by Race

Cambridge: 1999–2000

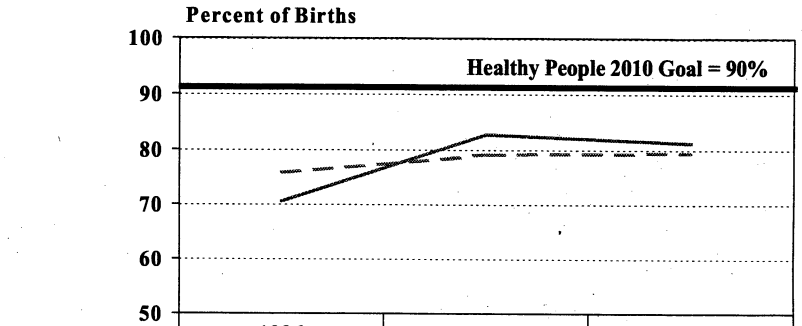


Source: Commonwealth of Massachusetts Division of Medical Assistance, 06/27/2000

In Cambridge, 56% of persons enrolled in MassHealth were White, 30% were Black, and 10% were Hispanic.

Percent of Women Receiving Adequate Prenatal Care*

Cambridge and MA: 1989–1998



	1996	1997	1998
—— Cambridge	71	83	81
– – MA	76	79	79

* Started prenatal care in the first trimester and made a total of nine or more visits.
Note: In 1996, Massachusetts revised the collection of birth data. Due to these changes, data for the year 1996 and after cannot be directly compared to data from the preceding years.
Source: Natality, MassCHIP v2.5 r213.0, 11/20/2000

In 1998, 81% of pregnant women in Cambridge received adequate prenatal care, defined as care that began early and continued throughout the pregnancy.

PROGRAMS

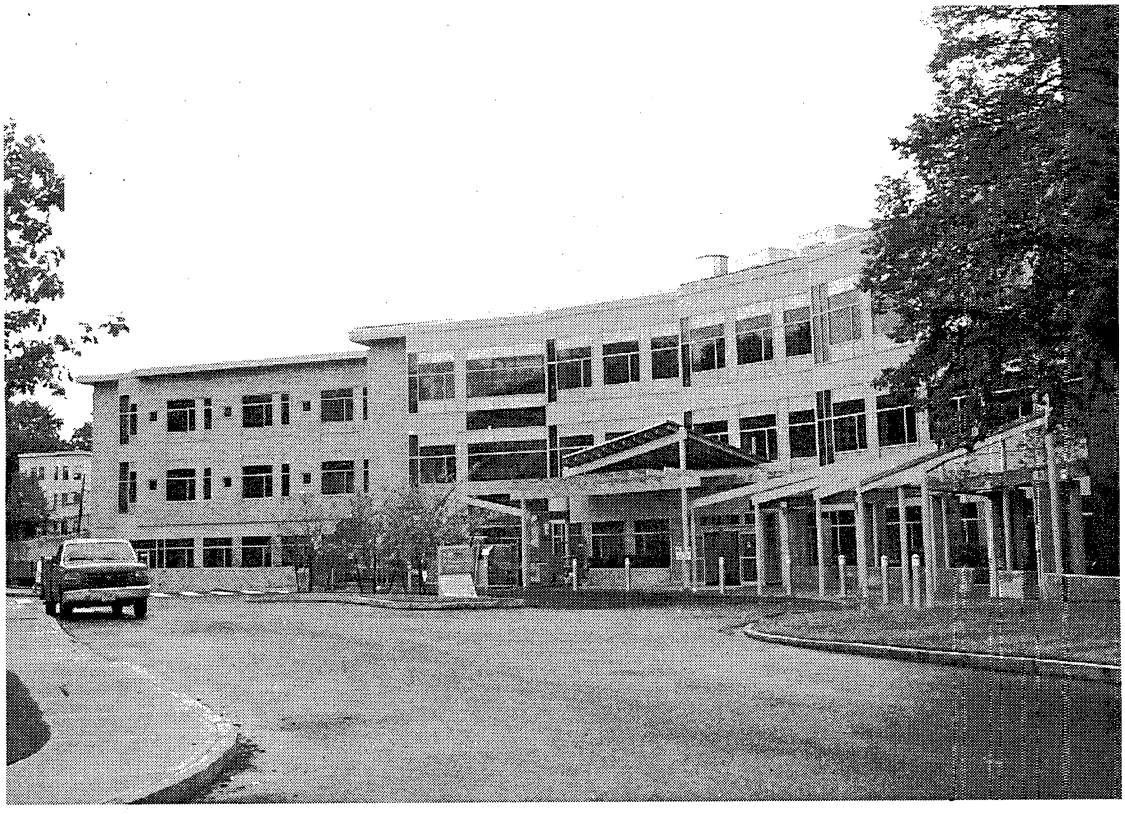
Cambridge has a wide array of health resources. Within its borders are two hospitals, a number of primary care sites, and a variety of alternative medicine practices. Across the river, the Longwood medical area provides a wealth of medical expertise through its medical schools, dental schools, and excellent teaching hospitals.

Nonetheless, we know that many people in the Cambridge-Somerville area are without the benefit of adequate health care. The Cambridge Hospital and Boston Medical Center historically have been the providers for individuals and families with limited access to health care services in Greater Boston. The Cambridge Health Alliance was built on the foundation of The Cambridge Hospital and remains committed to providing health care regardless of an individual's ability to pay.

At the same time, the Cambridge Health Alliance has moved beyond the definition, scope, and reputation of the former Cambridge City Hospital. Expanded medical and surgical specialties complement programs designed to increase physical, cultural, and financial accessibility. The medical expertise and personal care available at the Alliance, as well as the commitment to access for all, has attracted many new patients.

This section describes some Cambridge Health Alliance programs that have been designed to increase access—physically, culturally, financially—to health care for all Cambridge residents.

PHYSICAL ACCESS TO HEALTH CARE: THE FACILITIES



New Ambulatory Building at The Cambridge Hospital

The opening of the new three-story ambulatory building in August 2000 was a milestone in the history of the Cambridge Health Alliance and The Cambridge Hospital.

Attached to the hospital's main building, the 60,000-square foot ambulatory center is the new home of Cambridge Pediatrics, the Primary Care Center, the Women's Health Center, orthopedics, medical specialties, surgical specialties, same day surgery, and rehabilitative services. The center contains more than 100 examination rooms, treatment rooms, and physician offices; and will accommodate more than 100,000 patient visits per year. A four-level underground parking garage will ease the parking strain at the Cambridge campus and in mid-Cambridge.

The ambulatory center is part of a major initiative of the Cambridge Health Alliance to expand, upgrade, and modernize facilities at The Cambridge Hospital campus. Planning for this initiative, dubbed the REACH Project (Renewal and Expansion as a Center for Community Health), began in the early 1990's and involved many Alliance staff members, community leaders, neighborhood groups, and Cambridge and Somerville officials in the planning process. Construction began in 1996.

The opening of the ambulatory center coincided with the completion of a new main entrance to The Cambridge Hospital. The Camelia Avenue entrance has improved public access to all outpatient and inpatient services, and to the expanded and refurbished Emergency Department. Clinical support services (e.g., admitting, registration, financial assistance, patient relations), a meditation room, and a gift shop are located just off the lobby, a convenient location for ambulatory patients and their families. New radiology department facilities include upgraded diagnostic imaging technology and greater service capacity for mammography and ultrasound. A state-of-the-art MRI will also be part of the radiology upgrade.

In spring 2000, the Learning Center was established to support extensive clinical teaching and community health education at The Cambridge Hospital. Located in bright new facilities, the Learning Center features an enlarged health sciences library and a suite of four meeting rooms for lectures, conferences, and special events.

In fall 2000, work began to completely renovate the surgical suite and intensive care unit (ICU) on the third and fourth floors of the hospital's main building. The renovation project is scheduled for completion in mid-2001.

New same-day surgery and post-anesthesia care units will provide pleasant surroundings and easily accessible facilities for surgical patients and their families during pre- and post-operative care. Operating rooms will be rebuilt and upgraded to accommodate advancing biomedical technologies. Elsewhere on the third floor, the three-year renovation of the central laboratories is nearly complete.

The ICU will be completely renovated at its existing location on the fourth floor of the hospital's main building. The new ICU will feature eight fully equipped, single-bed patient rooms that will provide privacy and comfort for seriously ill patients and their families. Sections of the fourth through sixth floors will be renovated to improve privacy and handicapped accessibility for patients and visitors, and provide much needed support space for clinical staff.

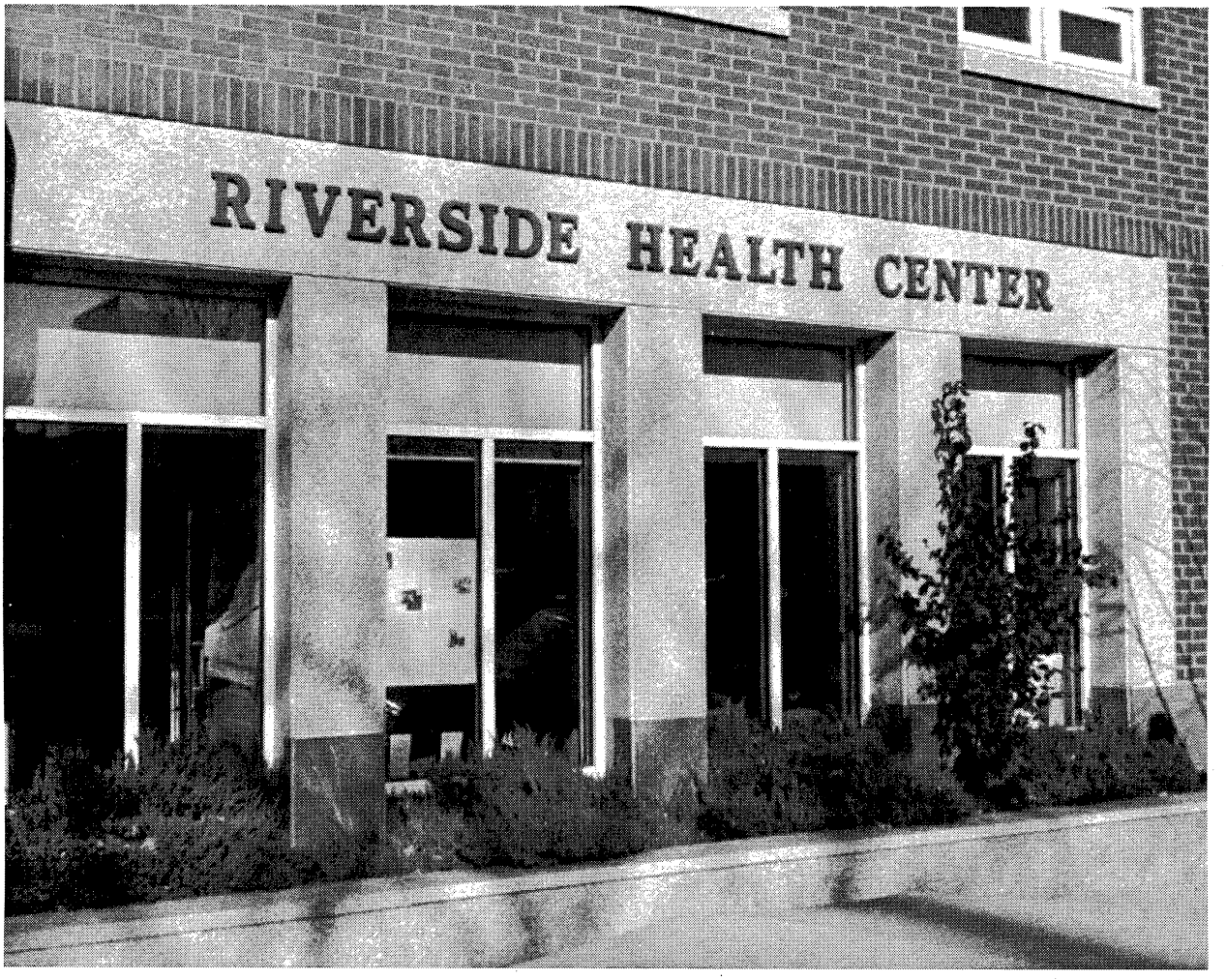
Earlier phases of the REACH Project gave us a new maternity suite, the Cambridge Birth Center, upgraded emergency and psychiatric emergency services, and mechanical and structural upgrades to the Macht and Cahill buildings.

Primary Care Sites

The Cambridge Health Alliance has primary health care sites on the main campus and throughout Cambridge and Somerville. These facilities provide an array of services on weekdays, evenings, and weekends to accommodate the busy lives of Cambridge residents and workers. The Cambridge Health Alliance employs highly skilled clinical and administrative staff who speak the many languages of our diverse community.

In addition to the primary care sites located in the new ambulatory building (Cambridge Pediatrics and the Primary Care Center), the Alliance has two health centers that meet the needs of age-specific populations: the Teen Health Center and the Senior Health Center.

Five additional health centers are located in neighborhoods throughout Cambridge. They are Riverside, Windsor Street, East Cambridge, and North Cambridge health centers, and Cambridge Family Health in Inman Square. The health centers offer adult, pediatric, mental health, obstetrics & gynecology, midwifery, family planning, and nutrition services. Major renovation of the facilities began in the early 1990's at the North Cambridge and Riverside health centers. Most recently, the completion of the beautiful, expanded health centers at Windsor Street and East Cambridge have significantly added to the capacity of the Cambridge Health Alliance.



Open Access

It has become standard practice in American medicine for patients to wait four to six weeks for a routine appointment with their health care provider. Patients have frequently cited this as a cause of dissatisfaction and a leading reason for changing providers.

The Cambridge Health Alliance has taken the lead among health care systems nationally to improve access to health care. Borrowing a concept from other customer-savvy industries, the Alliance has instituted a new scheduling system, called "Open Access," that allows patients to see their health care providers for routine visits on the same day or within 72 hours of their request for an appointment. If their providers are not available, the patients have the option of seeing another provider that day. Under this system, the Alliance will be able to increase capacity and reduce demand for provider visits. Acute illness visits will continue to be managed on a same-day basis in this new system.

As of December 2000, all but two Cambridge Health Alliance primary care sites had adopted this patient scheduling system. The two remaining sites will implement the system in early 2001. So far, the results have been positive. The system has provided consistency and predictability to the day and has increased patient satisfaction, reduced staff frustration, and decreased no-show rates.

PHYSICAL ACCESS TO HEALTH CARE: PROGRAMS

Home Visiting Programs

In addition to the facility-based services described in the previous section, the Cambridge Health Alliance has also provided innovative home visiting services for a number of years. Home visiting services range from educational visits with families of newborns and families of children who have identified health risks (e.g., asthma or lead poisoning), to health care provided to very ill or frail individuals. Program descriptions follow.

Newborn Home Visiting

In 2000, the Cambridge Public Health Department formally joined its newborn home visiting services with FIRSTLink, a statewide program that closely matched our own. FIRSTLink uses birth certificate data to identify newborns with conditions that may place them at risk for adverse health or developmental outcomes. The program links identified families with community resources. The Cambridge/Somerville FIRSTLink program is one of the few programs in the state that offers visits to all families rather than limiting the program to those with increased risk factors.

During home visits, within 8 to 12 weeks after delivery, public health nurses provide education about baby care, answer questions from anxious parents, and deliver gift packages filled with items for the babies and parents. In 2000, 112 families accepted our offer of a home visit. As a result of these visits, parents were referred to primary health care providers, Cambridge Somerville Early Intervention services, the Center for Families of North Cambridge, and Healthy Homes.

The Cambridge Youth Guidance Center's Early Intervention program is the FIRSTLink coordinating agency for Cambridge and Somerville. The participating agencies are Cambridge Public Health Nursing, Cambridge-Somerville Early Intervention, Somerville Healthy Families, The Center for Families of North Cambridge, Home Based Early Childhood Programs of the Cambridge School Department, and Catholic Charities' Young Parents Program.

House Calls

House Calls is a program of the Division of Geriatrics at the Cambridge Health Alliance that provides essential primary health care for frail homebound elders living in Cambridge and Somerville. The program uses an interdisciplinary approach to medical care that helps elders maintain independent living within the community. To coordinate home care, House Calls providers work closely with Somerville Cambridge Elder Services, the Visiting Nurse Associations, the Council on Aging, and the Psychiatric Geriatric Service. Physicians and nurse practitioners provide primary health care during regularly scheduled home visits. Other team members include nutritionists, physical therapists, psychotherapists, social workers, and substance abuse counselors. When patients require hospitalization, they receive care at The

Cambridge Hospital and are seen daily by their primary care physicians. This program (and others geared toward the health care needs of seniors) was highlighted in the chapter on geriatric health in the 2000 Assessment.

Healthy Homes

The Healthy Homes program will be described in greater detail in Chapter 3: Environmental Health. Healthy Homes was built on the foundation of the Childhood Lead Poisoning Prevention Program, which provided home-based education to families with children who are at-risk for lead poisoning. Healthy Homes expanded this model to address asthma, injuries, and other medical conditions related to the home environment. The program manager of Healthy Homes is a licensed lead inspector and a trained sanitary code inspector. The program also employs a pediatric nurse and a home environmental counselor.

Access to Dental Care: The Children's Dental Program

Access to dental care, particularly for children, has greatly increased in Cambridge in the past several years. The Children's Dental Program emerged from a 1994 collaborative project between Health of the City and the Harvard School of Dental Medicine. When the Windsor Street Dental Clinic opened in spring 1999, it significantly increased the capacity of the Cambridge Health Alliance to serve its clientele. The clinic began offering Saturday morning hours in fall 2000, which has further expanded access to dental care for Cambridge residents.

School Age Children

A Case Study

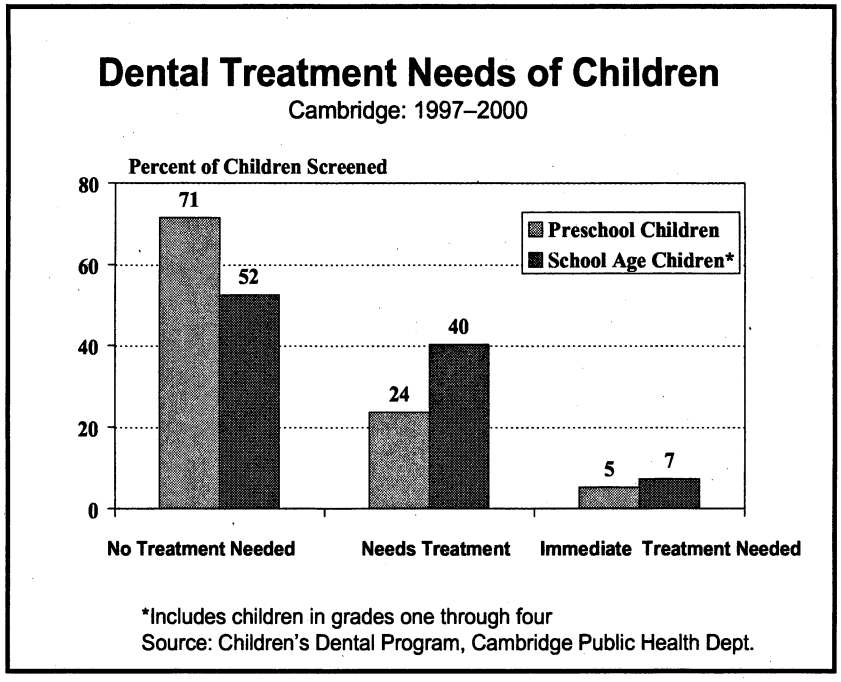
> On their first day of elementary school in this country, three siblings from central Asia were escorted to a dental screening. The children were political refugees who had arrived in the United States only days before. They spoke no English. All three youngsters had serious dental disease that required urgent treatment. Their parents, who also did not speak English, were clearly overwhelmed by the American health care system. Through an interpreter who understood the family's particular dialect and culture, the program coordinator was able to schedule emergency appointments and the children received treatment at no cost to the family.

Established in 1997, the Children's Dental Program provides elementary and preschool children in Cambridge with a range of services including dental education, dental screening, and referrals for dental care. Through this program, children who are most in need of dental treatment are identified and referred for care. The program coordinator assists families with referrals and with scheduling dental appointments for their children.

Through FY2000, the program was funded primarily by the Bullock Trust Fund. As of December 2000, the program coordinator provided dental education to 4,883 children and dental screenings to 4,237 children in kindergarten, first, second, third, and fourth grades. During the

1999-2000 school year, 1,671 children participated in the dental screening program. Financial constraints have limited the focus to young children. With additional funding, the program could be expanded to the middle-grades.

Since its inception, the program has provided classroom education and dental screenings in all 14 public elementary schools and the Benjamin Banneker Charter School. There are plans to expand the program to Cambridge parochial schools in spring 2001. Of the 4,237 school-age children who have participated in the dental screenings over the course of the program, 1,707 children have been referred for dental treatment. Of these children, 310 have required urgent dental care.



Among Cambridge school children in grades 1 to 4, 40% had untreated cavities and were referred for dental care. An additional 7% needed immediate or urgent treatment. While rates were lower in preschool children, 24% needed referral for dental care and 5% needed immediate treatment

Preschool Children

In 1998, a preschool prevention component was designed to provide classroom education, dental screenings, and training to staff members. All Head Start programs and most Cambridge preschools have been offered this facet of the program. Since 1998, the program has provided dental health education to over 700 children in Cambridge preschools and has screened 650 children. Of those screened, 153 were referred for treatment. More than 21% of those referred for treatment (33) have required urgent dental care.

During summer 2000, the Children's Dental Program began offering dental screenings to participants in the Cambridge WIC Program, which is located at the Windsor Street Community and Health Center. Children are often screened and referred for treatment on the same day.

Research

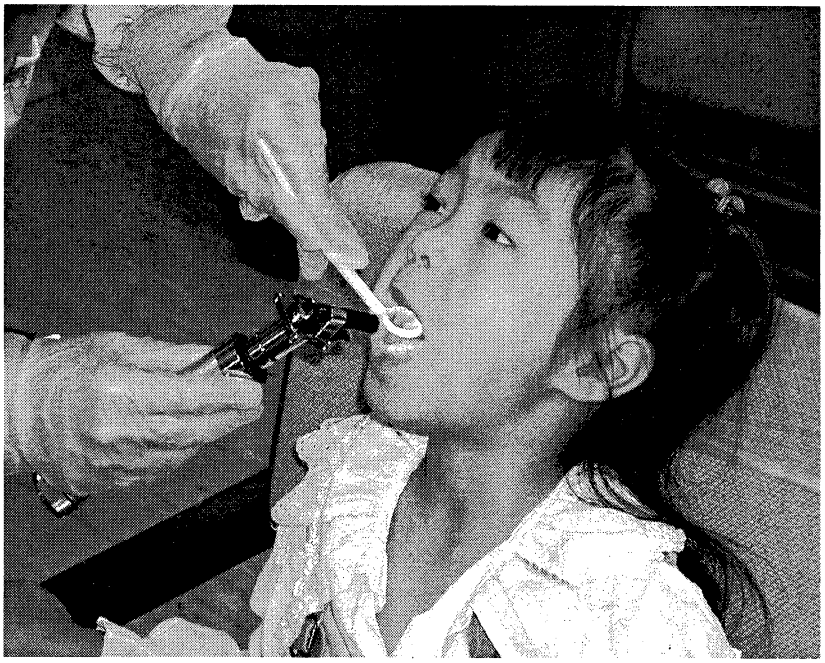
The partnership between the Cambridge Public Health Department and Harvard School of Dental Medicine has fostered practical research in children's dental health. One current example is a study of the relationship between bottled water use and the rate of dental decay among preschool children. While the fluoride content of tap water is regulated according to public health standards, the same standards of fluoride content do not apply to bottled drinking water.

The Children's Dental Program, in partnership with the Harvard School of Dental Medicine, is participating in an international collaborative oral health research program. The long-term goal of this project is to determine optimum interventions to reduce dental caries in children who come from disadvantaged and ethnically diverse communities.

Windsor Street Dental Clinic

Due to the increased capacity of the new, larger dental clinic at Windsor Street, the number of patients has grown considerably. Established in 1999, the Windsor Street Dental Clinic had approximately 10,284 patient visits in FY 2000. The clinic has accommodated many of the children identified through dental screenings as needing treatment.

In 2000, the Cambridge Health Alliance dental clinics began offering Saturday hours to help meet the high demand for appointments.



CULTURAL ACCESSIBILITY: POPULATION-BASED SERVICES

How does an institution create an accepting and welcoming environment in which patients feel comfortable participating in the intimate interactions required in health care?

The Cambridge Health Alliance has built cultural sensitivity into its organizational and physical structures. It recognizes the intrinsic value of developing services that increase the comfort level of particular population groups. Such services enhance the system's ability to deliver health care to populations that would otherwise be unlikely to seek care.

Population-specific programs include the Immigrant Health Improvement Program, Interpreter Services, the Teen Health Center, Health Care for the Homeless, the Men of Color Health Project, Linguistic Mental Health Teams, and the Senior Health Center. Descriptions of some of those programs are included in this chapter.

Cultural Access: Immigrants

Immigrant Health Improvement Program

The Cambridge Health Alliance received funding from the Kellogg Foundation to develop a demonstration program of the American Hospital Association's Community Care Network Program. The result was Somerbridge (est. 1995), a two-city approach to health issues that was instrumental in bringing together many community partners and community leaders to work collaboratively on several projects. The Immigrant Health Task Force evolved from this group.

The Immigrant Health Task Force soon identified immigrant health as its sole priority, due largely to the task force's grassroots leadership, and was renamed the Immigrant Health Improvement Project. Through the work of the Immigrant Health Improvement Project, the Alliance has begun to improve access and health status among immigrant populations.

Specific tasks include developing methods to monitor the progress of the Alliance toward increasing access for immigrants and providing cost-effective, culturally competent care. A steering committee with representatives from the community and a cross section of Alliance staff will be convened on a regular basis. This committee will guide the selection of indicators, monitor data collection, and advise on action plans to address identified disparities.

Medical Interpreter Training Program

The Cambridge Health Alliance has long been committed to providing culturally competent care. However, the Alliance faces an ongoing struggle to find trained interpreters to fill available positions. To address this gap, the Cambridge Health Alliance, Neighbors for a Better Community, Inc., and Cambridge College undertook a major joint initiative in 2000 to develop

and launch a college-based interpreter training program. The year-long program is geared primarily for immigrants, and is one of the few college-based medical interpreter training programs in the country.

The demand for qualified medical interpreters has become even more pressing for health care institutions in Massachusetts since the passage of the Emergency Room Interpreter Bill in April 2000. This statewide legislation requires hospitals to provide interpreters for emergency room and acute psychiatric services. It also requires government payers to reimburse hospitals for interpreter expenses. Patients who are not provided with an interpreter have the right to sue the hospital. Representative Jarrett Barrios, a Cambridge resident, was a key sponsor of the bill and a significant political force in pushing it through the state legislature.

Interpreter Services

In June 1999, the Cambridge Health Alliance expanded the interpreting capacity available at neighborhood health centers. In previous years, the health centers have relied exclusively on support staff to interpret for patients and providers. Now, the Windsor Street Health Center has a full-time Spanish interpreter and North Cambridge Health Center has a half-time Haitian Creole interpreter. On-call interpreters are also available at all sites during office hours.

The majority of the interpreters in Cambridge are employed at the main campus. At this time, five Portuguese, two Spanish, and two Haitian Creole interpreters work full-time at the hospital. The first full-time interpreter for patients speaking Hindi or Bengali was hired in June 1999. We anticipate hiring an additional interpreter as the number of patients from the Indian subcontinent continues to grow.

Interpreter Services responded to 45,536 requests for interpreters between January 2000 and October 2000. About 60% of the requests were for Portuguese-speaking interpreters, a trend that is likely to continue since Brazilians comprise the Alliance's fastest growing patient population. In all, Alliance patients who used Interpreter Services spoke a total of 33 different languages, including Tibetan, Korean, Arabic, Chinese, Albanian, and Somali.

Linguistic Capacity

The Organizational Development Department provides language classes for Alliance staff. English classes are available to multilingual employees who wish to improve their speaking and writing skills. In an effort to increase the linguistic capacity of the institution, classes are offered in Spanish, Portuguese, and Haitian Creole to employees who wish to build other language skills.

Linguistic Mental Health Services

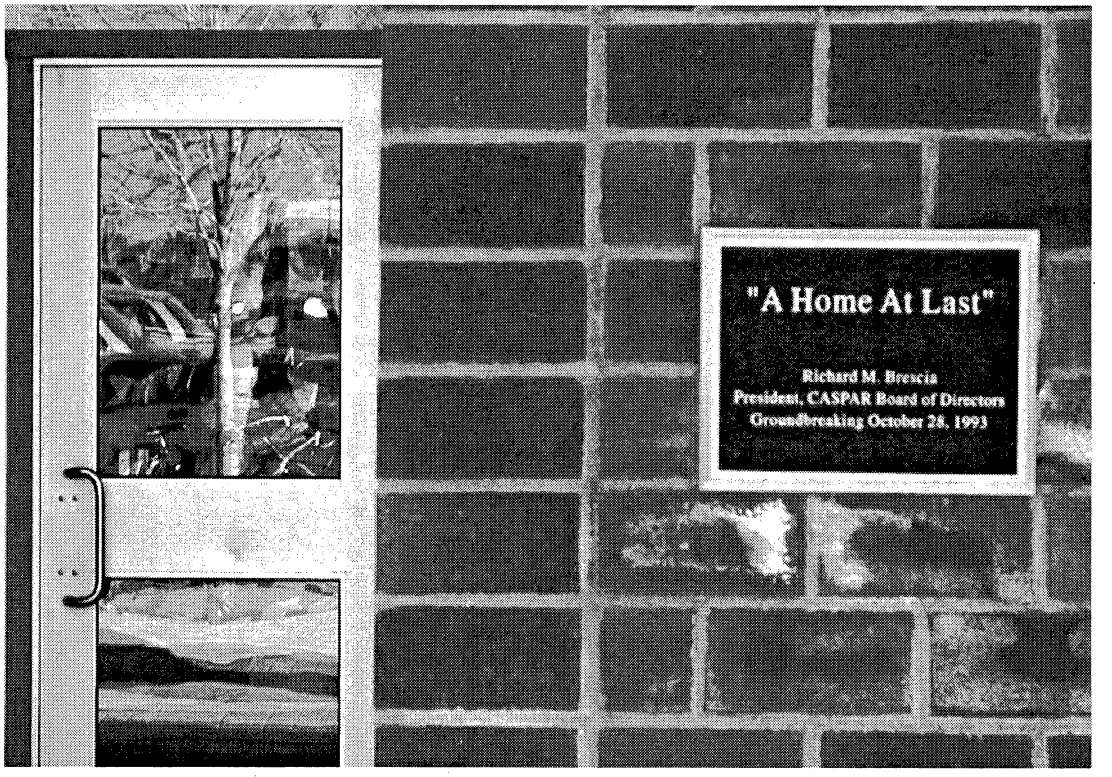
The Department of Psychiatry at the Cambridge Health Alliance has developed linguistic mental health services that include Latino, Haitian, Portuguese, and South Asian mental health teams. The clients of these services are primarily native speakers or the families of native speakers. All team clinicians are familiar with the cultures and speak the languages of their clientele.

Cultural Access: The Homeless Community

Health Care for the Homeless

For the past 12 years, the Cambridge Health Care for the Homeless program has provided a package of health care services that is affordable, accessible, and acceptable to homeless men, women, and children. Physicians, nurse practitioners, nurses, a social worker, and a medical assistant comprise the multidisciplinary team that delivers primary health care in the shelters, soup kitchens, drop-in centers, and on the streets of Cambridge and Somerville.

The program operates two outreach clinics in Cambridge. The Cambridge Salvation Army hosts a clinic for homeless adults and children and operates four days a week. The CASPAR Emergency Service Center at Albany Street hosts a clinic for its shelter guests. The CASPAR clinic serves homeless adults suffering from the disease of addiction.



CASPAR, a Homeless Shelter located on Albany Street in Cambridge.

Services for homeless adults are also provided at Shelter, Inc., On the Rise, and the St. Patrick's Women's Shelter. A special pilot project, funded by the Massachusetts Department of Public Health, provides a nurse practitioner to the CASPAR First Step Outreach Team. First Step deploys two teams of specially trained, van-based street outreach workers to assist actively substance abusing homeless persons access shelter or detox services. The project's goal is to demonstrate that providing intensive medical case management services to people living on the streets can prevent deaths among this vulnerable group.

Health Care for the Homeless also provides case management services at Cambridge family shelters. An important aspect of this work is helping families find health care services that are appropriate for all family members. Often this is accomplished by referring a homeless family to a more traditional health care setting, where a Health Care for the Homeless nurse will ensure that provisions are made for the special needs of the family. Family shelter sites include the Cambridge YWCA, the Hildebrand Family Self Help Center, and Transition House.

In addition to outpatient services, Health Care for the Homeless staff members conduct inpatient rounds at The Cambridge Hospital and Somerville Hospital. They visit homeless patients; consult with the inpatient medical team; assist with discharge planning and treatment plans; and serve as patient advocates.

Health Care for the Homeless averages nearly 300 patient visits per month. Provider visits with homeless patients are often longer than in traditional health care settings due to the complex medical and psychological needs of this population. The program receives funding from a variety of sources including grants from the Federal Public Health Service, Housing and Urban Development, and the Massachusetts Department of Public Health. When possible, the program bills Medicaid and other insurers.

Cultural Access: Men of Color

The Men of Color Health Project is designed to promote healthy behavior among men of color, a population at high risk for many health problems. This program has made considerable effort to reach out to men of color based on research indicating that this group disproportionately experiences poor or impeded access to health care. The diversification of the Cambridge Health Alliance staff on all levels, from senior administration to clinicians to support staff, is a noteworthy example of how the Alliance is becoming more welcoming and responsive to men and women of color. The Men of Color Health Project has conducted surveys, focus groups, and community meetings, to elicit community input in program development. The Men of Color Health Project is described in greater detail in Chapter 6: Health Promotion and Disease Prevention.

Cultural Access: Adolescents

The Teen Health Center at Cambridge Rindge and Latin School was developed to meet the specific developmental, emotional, and health care needs of adolescents. Cambridge teens hail from many parts of the world and from different cultures within the city. To be effective, adolescent health program staff must not only be culturally competent but also knowledgeable about the current, and constantly changing, youth culture.

In 2000, the Cambridge Health Alliance hired a new director of adolescent medicine to revitalize the school-based health centers in Cambridge and Somerville; to oversee adolescent medicine at pediatric clinics throughout the Alliance; and to establish a new adolescent clinic at the Women's Health Center.

FINANCIAL ACCESS

In Massachusetts, access to health care has recently been expanded through Medicaid, the Children's Medical Security Act, and the stabilization of the Uncompensated Care Pool (or Free Care Pool). These government programs help form an important safety net for the nearly 13% of Massachusetts residents who are without a regular source of medical insurance.

While the Massachusetts economy is booming, many newly added jobs do not offer health insurance benefits, which can hinder or even prevent individuals and families from obtaining necessary health care. The Cambridge Health Alliance has long identified access to health care as a key part of its mission and no individual or family is turned away for lack of insurance. Through Network Health and Free Care, the Alliance has expanded the availability of universal health care services in Cambridge and surrounding communities.

Network Health

Network Health is the Cambridge Health Alliance's non-profit Medicaid-managed care program. Its mission is to improve the health and well being of our communities through *care* management.

Established in 1997, Network Health has developed relationships with all of the major providers in Greater Boston including most of the world-renowned teaching hospitals and their affiliated systems. More recently, Network Health has expanded into service areas beyond Cambridge and Somerville through partnerships with providers in eastern and central Massachusetts. It is a statewide Medicaid HMO, adds to the financial strength of the Cambridge Health Alliance, and improves the quality of care in Cambridge and throughout the state.

As of December 2000, Network Health had more than 20,000 members; about 8,000 of whom reside in the Cambridge-Somerville area. Network Health expects to add another 8,000 members by the end of FY2001. Approximately 800 primary care physicians and 7,500 supporting specialists participate in the plan. Network Health operates in Cambridge, Somerville, Revere, Chelsea, Malden, Medford, Melrose, Everett, Wakefield, Worcester, Fitchburg, Leominster, and Gardner.

Network Health is accepted by Children's Hospital, Beth Israel/Deaconess Hospital (CareGroup), Massachusetts Eye and Ear Infirmary, and UMass Memorial Health Care in Worcester, in addition to the Cambridge Health Alliance. Network Health is currently in the process of contracting with the New England Medical Center and community hospitals throughout our service area.

Private Insurance

The Alliance accepts a full range of public and private insurance, and third party reimbursements. Staff members at the health centers review insurance and payment options with patients in a private and respectful atmosphere, helping many individuals obtain free and reduced-fee health care. Unfortunately, there is insufficient data regarding the number or percentage of people in Cambridge or Massachusetts who actually have health insurance.

Health Access Grants

The Cambridge Health Alliance has received numerous grants from state and federal departments and from private foundations, to increase access to health care. One example is a grant received in FY2001 for a joint project of the Cambridge Family Resource Center and the School Health Program to improve access to health insurance for families of Cambridge students. School nurses and family liaisons work together to identify students and families who have no health insurance or who are underinsured, and to assist those families in applying for health insurance benefits from state-funded insurance programs (e.g., MassHealth and the Children's Medical Security Plan). Network Health staff members have contributed to this effort by training family liaisons about how to complete the health benefit applications.

AREAS OF NEED

- ***Cultural Competency.*** As new immigrants continue to settle in Cambridge and Somerville, there is an ongoing need for improvements in cultural competency. There are numerous small immigrant populations whose culture or language may not be represented among providers. Even among the more predominant linguistic groups, there is enormous competition in the current job market for qualified interpreter staff.

- ***Men's Health.*** There is sparse data on the health of men in general, and on minority men in particular. It is a well-known phenomenon that men are less apt than women to avail themselves of preventive and primary health care. Understanding and breaking down the barriers that keep men from accessing care remain important challenges.

- ***Universal Health Care.*** Regarding financial accessibility, the ideal solution is universal health care. Many within the Cambridge Health Alliance work tirelessly toward this goal. Meanwhile, it is difficult to assess the actual number of people without health insurance or access to health care.

- ***The Housing Crisis.*** This document would be incomplete if it did not identify the housing crisis in Massachusetts as a factor related to access to health care. Indeed, housing has a profound impact on health status and health care. With limited options for decent housing, poor families, especially undocumented immigrants, are living in situations that contribute to ill health and injury. Middle income families who are being pushed out of Cambridge and Greater Boston by rising housing costs will have diminished access to the services described throughout this document.

CHAPTER 2: VIOLENCE PREVENTION

INTRODUCTION

Since 1992, violence prevention has been among the top priorities of the Cambridge Public Health Department. Health, human services, and law enforcement organizations in Cambridge have worked together over the past eight years to address violence prevention. Collaboration among city departments and community-based agencies has broadened our perspective on violence and the profound impact it has on our community. The collaborative approach has also increased our understanding about how the physical and psychological trauma of violence affects relationships, families, and individual productivity.

In the past few years, the prevalence of violence has declined in Cambridge, reflecting a statewide trend. Homicide, violent crime, and violence-related injury rates in Cambridge are lower than those in many other communities and lower than state averages (See Violent Crime Data, page 40). In spite of this encouraging news, the human cost of interpersonal violence demands continued energy and attention. Effective violence prevention requires a multi-faceted approach that encompasses education, enforcement, communication, and evaluation. Sufficient resources are necessary to sustain existing prevention efforts and services for victims and perpetrators. Continued collaboration between policy makers and service providers is essential.

Domestic violence and abuse is a subset of violence that remains an enormous threat to the health and safety of people in our community. Victims come from all ethnic, racial, and socioeconomic groups. Most often they are women, children, gay men and lesbians, and care-dependent adults such as frail elders. Because domestic violence most often occurs in the privacy of the home and leads to shame, despair, and terror, these tragic circumstances are woefully underreported.

Following years of broad, but unfocused violence prevention work, the Cambridge Health Policy Board, community leaders, and city government officials decided in the mid-1990's to focus most of the city's efforts on domestic violence. This decision was informed by knowledge that domestic violence is deeply interconnected with other forms of violence. Victims, perpetrators, and children who witness violence carry their experiences and emotional pain with them into the world. This chapter, as in previous Cambridge Health Alliance Assessments, is largely about domestic violence prevention.

Youth violence prevention, another aspect of this complex work, has experienced a resurgence in Cambridge in recent years. Adolescent dating violence, which lies at the intersection of youth and domestic violence, is also part of youth violence prevention. Community partners such as the Cambridge Public Schools, Department of Human Service Programs, and the Peace Commission are leading the effort through the Violence Prevention Task Force.

INDICATORS OF VIOLENCE AND VIOLENCE PREVENTION

Indicators for measuring violence and violence prevention in Cambridge include data collected by the Cambridge Police Department, the Department of Social Services, and from the student health surveys.

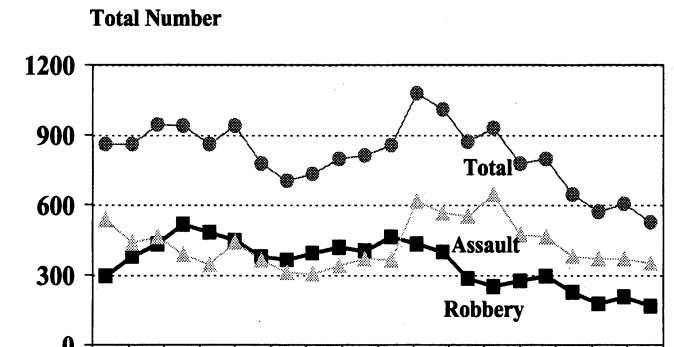
These indicators, many correlating with *Healthy People 2010* measures, fall into two categories: domestic violence and youth violence. They include:

- Number of restraining orders that involve individuals living or working in Cambridge (See page 41)
- Number of police reports of domestic violence incidents (See page 41)
- Student survey responses of violent experiences, including witnessing violence, weapon carrying, and fear of violence (See page 42)
- Prevalence of physical fighting among adolescents (See page 42)
- Incidence of weapon carrying on school property (See page 43)

VIOLENT CRIME DATA

Trends in Violent Crime

Assault and Robbery in Cambridge: 1978–1999



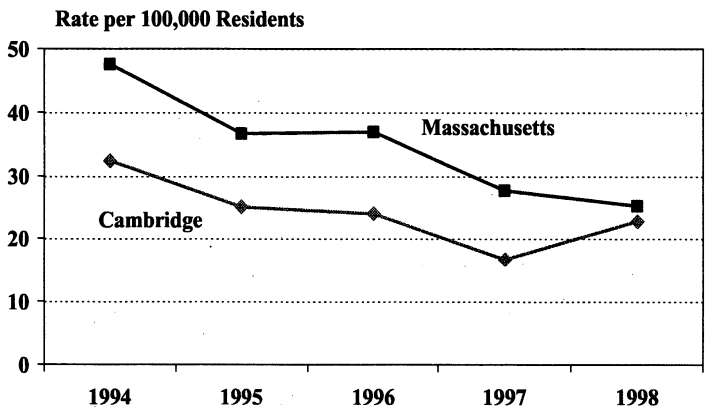
	78	79	81	82	84	85	86	88	89	90	92	93	95	96	97	99
Total	862	862	937	862	779	704	734	810	857	1077	872	928	796	643	572	526
Murder	1	2	3	4	6	0	4	7	7	3	2	2	3	1	2	2
Rape	32	46	28	30	31	27	31	30	25	29	33	30	35	34	24	11

Source: Uniform Crime Report, Cambridge Police Dept.

Violent crime peaked at 1077 crimes in 1990 and declined to 524 in 1999.

Violence–Related Injuries

Visits to Emergency Departments for Injuries
from Guns and Sharp Instruments
Cambridge and Massachusetts: 1994–1998



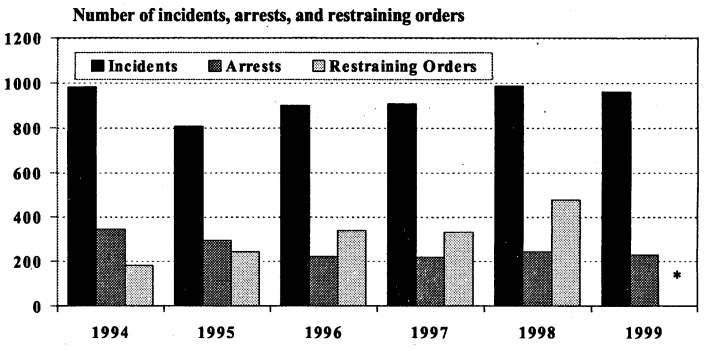
Source: Weapon-Related Injury Surveillance System, Massachusetts DPH

Rates of violence related injuries in Cambridge fell from 32.4 per 100,000 in 1994 to 22.8 per 100,000 in 1998. Rates also decreased statewide.

DOMESTIC VIOLENCE DATA

Domestic Violence Incidents, Arrests, and Restraining Orders

Cambridge: 1994–1999



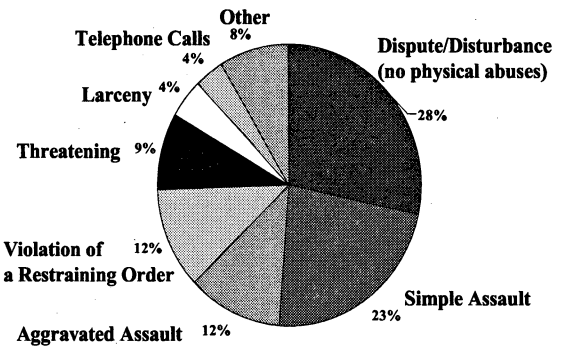
* Data not available

Source: Cambridge Police Department, 1999

The Cambridge Police took between 800 and 1000 reports for domestic incidents each year from 1994 to 1999; however, this is an underestimate because under-reporting is a serious problem with domestic crimes. Over the same time period, arrests decreased while the number of restraining orders increased.

Police Reports of Domestic Incidents

Cambridge: 1999



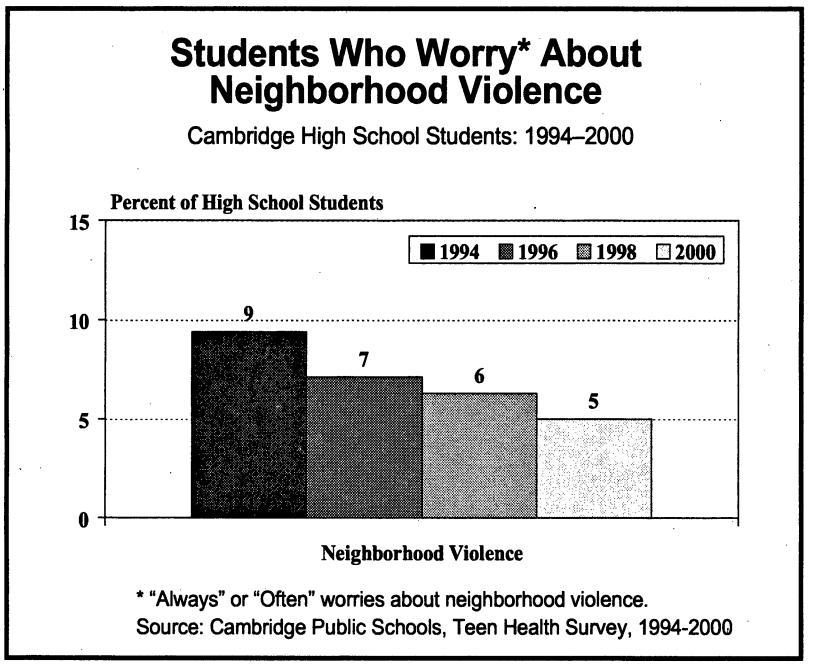
Domestic crimes include offenses committed against family members, spouses, ex-spouses, roommates, romantic partners, and ex-romantic partners

Total number of incidents = 948

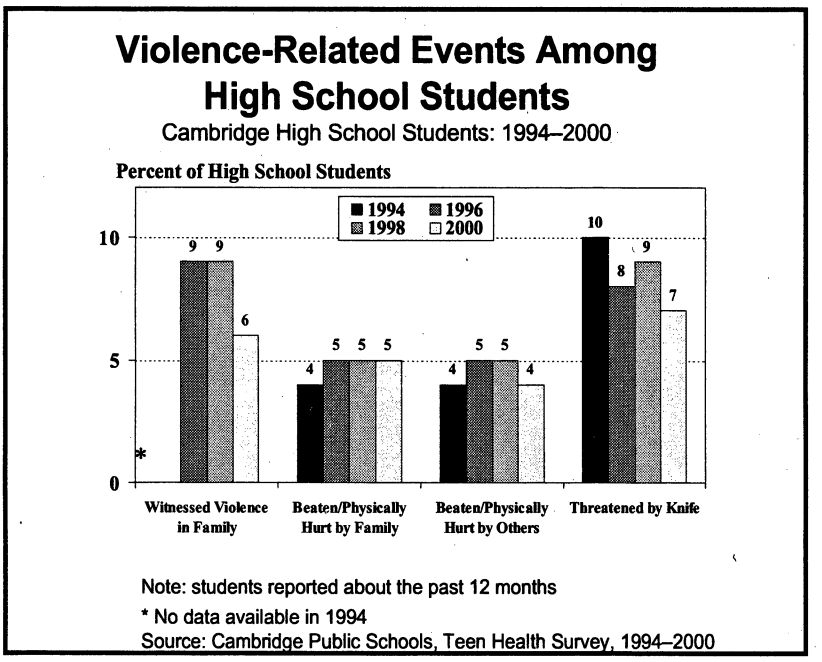
Source: 1999 Annual Crime Report, Cambridge Police Department

Among 948 police reports of domestic incidents in 1999, 28% were disputes involving no physical abuse; 23% were simple assaults; 12% were aggravated assaults; and 12% involved violation of a restraining order.

YOUTH VIOLENCE DATA



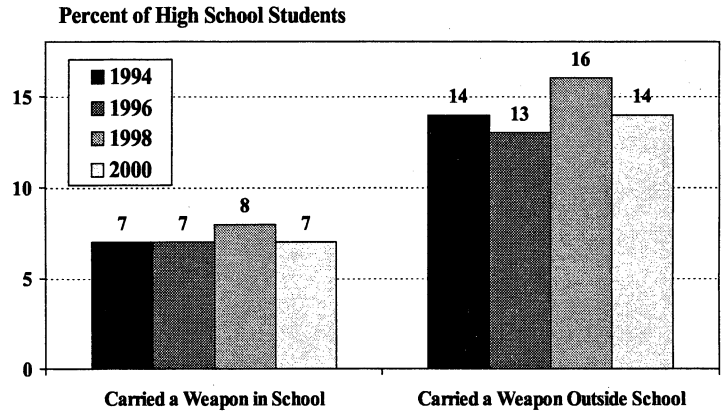
Cambridge high school students who worry about neighborhood violence fell from 9% in 1994 to 5% in 2000.



Many Cambridge students reported violence in their lives during the previous 12 months. The percent of students witnessing violence in the family declined from 9% in 1996 to 6% in 2000. Reports of being threatened by a knife fell from 10% in 1994 to 7% in 2000. Reports of being beaten or physically hurt by a family member or by others fluctuated around 5%.

Students Who Carry Weapons

Cambridge High School Students: 1994–2000

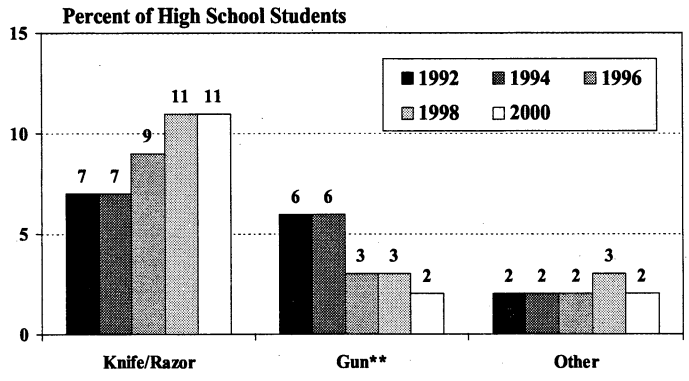


Note: Students reported about the past 30 days.
Source: Cambridge Public Schools, Teen Health Survey, 1994–2000

Between 1994 and 2000, 7% to 8% of Cambridge high school students reported carrying weapons in school. All years exceeded the *Healthy People 2010* goal of 8.5%. The percent of students carrying weapons outside school fluctuated from 13% to 16%.

Type of Weapons Carried by Students*

Cambridge High School Students: 1992–2000



Note: Students reported about the past 30 days.
* Inside and outside school ** Handgun or other gun type
Source: Cambridge Public Schools, Teen Health Survey, 1992–2000

The percent of Cambridge high school students carrying a knife or razor rose from 7% in 1992 to 11% in 1998, while gun carrying fell from 6% to 2% during the same time period.

PROGRAMS

The Domestic Violence Free Zone

The Domestic Violence Free Zone (DVFZ) has been the driving force behind most of the prevention work in Cambridge for the past five years. The program, guided by the violence prevention coordinator (who is employed by the Cambridge Public Health Department) and the DVFZ Core Group, is shaped by an implementation plan developed in 1996. The program's far-reaching vision is for Cambridge to be a city with ample resources, knowledge, and commitment by individuals and institutions to sharply reduce the prevalence and impact of domestic violence.

The DVFZ underwent leadership changes 2000. In March, the violence prevention coordinator resigned to accept a new position after more than five years with the Public Health Department. A new coordinator was hired in early November.

There was also significant staff turnover within the DVFZ Core Group during this period. An incidental result of the staffing changes was the loss of the three male members of this group. The primary working group of the DVFZ now consists entirely of women, the traditional bearers of the domestic violence prevention movement. The challenge here is to maintain awareness that domestic violence is as much a men's issue as it is a women's issue. This understanding is essential to preserving the commitment to and prominence of this critical issue.

DVFZ Training Programs

In the past few years, the DVFZ Core Group has co-authored a number of grant proposals to finance prevention efforts. Grant funding has supported training in the identification and referral of domestic violence. Training program participants have included the Cambridge Housing Authority, the police, human services, the public schools, and the Alliance. Teachers and therapists who work with children who witness violence have also participated in training geared to meet their particular needs.

The most recent training programs occurred in 1999 and 2000. They were grant-funded by the Cambridge Police Department and the U.S. Department of Health and Human Services. These grants were used to hire domestic violence specialists to provide the programs summarized below.

Cambridge Public Schools

A comprehensive two-day training program was provided to Cambridge school employees who are key responders to children who witness violence. Expert presentations were given by the police, the Department of Social Services, the District Attorney's Office, battered women's shelters, and Cambridge Health Alliance psychiatrists. In spite of the pressures during this high-stakes time for education, the school department was able to release busy administrative and clinical staff to attend these sessions. More than sixty professionals completed the training

during the 1999-2000 school year. These individuals have been identified as Domestic Violence Resource Persons within their respective schools.

Cambridge Health Alliance Training Program

The Cambridge Public Health Department received federal funding in FY01 to provide domestic violence training to health care providers. Training goals include increased screening for domestic violence, improved documentation of domestic violence, and increased referrals to community resources. The emergency department, obstetrics/gynecology, surgery, orthopedics, home care, nursing, and medical staff are among those participating.

SERVICES

Since domestic violence occurs in all elements of our society, one of the basic tenets of the DVFZ is that Cambridge employees and residents who are personally affected by domestic violence need information and services for themselves and their loved ones. The DVFZ Core Group has worked with the city and Alliance employee assistance programs to ensure that their employees experiencing domestic violence have access to appropriate supportive services.

In 2000, the city manager, in collaboration with the Community Development Department, identified funds for the renovation of Transition House, a battered women's shelter in Cambridge. The city and the state matched private donations, generating a total of $700,000 for capital improvements. In addition to repairing the physical condition of the shelter, the funding allows Transition House to increase the number of beds for women and children, to improve play spaces, and to build handicap-accessible entrances.

There are several area agencies that provide counseling services for victims of domestic violence. They include Transition House and Respond (a shelter located in Somerville), BARCC (the Boston Area Rape Crisis Center), and the Victims of Violence Program of the Cambridge Health Alliance. The Cambridge Youth Guidance Center has developed specialized treatment programs for children who witness domestic violence. In addition there are at least three programs for gay men and women: the Gay Men's Domestic Violence Project, the Network for Battered Lesbians and Bisexual Women, and the Violence Recovery Program at the Fenway Community Health Center. Cambridge is also home to Emerge, the oldest batterer intervention program in the country.

Domestic Violence Prevention: Cambridge Health Alliance

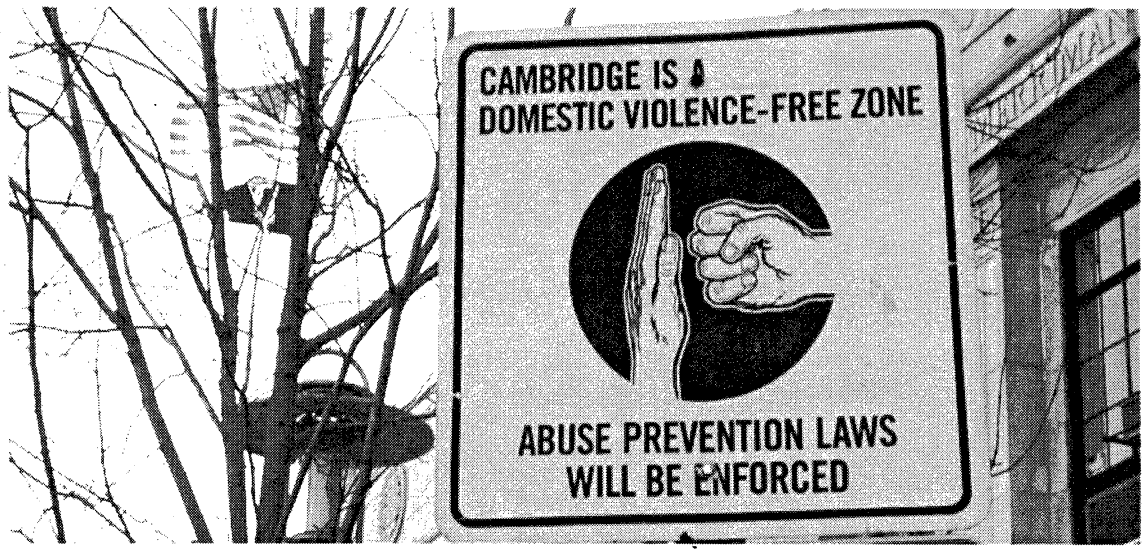
The Cambridge Health Alliance established a Domestic Violence Task Force in 1996. Through this task force, led by the chief of medicine, prevention work has been incorporated into the fabric of the Alliance. Domestic violence awareness is now an element of orientation for all new employees and has been built into the training for all medicine and psychiatry residents. New patients are routinely screened for domestic violence following a protocol established by the Department of Medicine.

The domestic violence training specialist, who has been conducting educational sessions for clinical staff of the Alliance, is also working to improve access to health care for the women and

children who are served by the two battered women's shelters in our area. Many women who escape abusive relationships have neglected their own health, are anxious about seeking care, and are only in these temporary shelters for a limited time as they work toward reclaiming their lives. To facilitate the delivery of services to these women and children, the training specialist has worked with other Alliance staff members to address patient registration, billing, medical records, appointments, and security. All Cambridge Health Alliance departments have enthusiastically embraced this project.

The Cambridge Health Alliance also offers direct care to victims of domestic violence. A nurse practitioner from Health Care for the Homeless visits Transition House regularly, providing care to women and children residents. Many of the women served at other Health Care for the Homeless sites have histories of victimization by partners and family members. These women receive primary and mental health care through this program.

The Victims of Violence Program was founded in 1984 as a service of the Department of Psychiatry. Clinical services include crisis response to acutely traumatized crime victims; longer-term psychological care for adult survivors of childhood trauma, domestic abuse, and chronic victimization; and a wide array of support and counseling groups. The Victims of Violence Program participates in and leads a number of state and local efforts to address and reduce domestic violence.



Another important and groundbreaking initiative of the Victims of Violence Program is the Community Crisis Response Team. This team provides consultation and traumatic stress debriefings for community groups affected by violence, and therefore deals with the aftermath of other forms of violence.

Youth Violence Prevention

The Violence Prevention Task Force is co-sponsored by the Cambridge Public Schools and the Cambridge Peace Commission. The task force was convened in winter 2000 after being dormant for several years. The group meets monthly and provides a networking opportunity for the many individuals and programs working to prevent youth violence.

Youth violence prevention programs discourage bullying, dating violence, gang violence, harassment, racism, and homophobia while, at the same time, building respect and self-esteem. Cambridge is fortunate to have relevant data available from the student health surveys, comparable to the Youth Risk Behavior Survey, which is a national survey conducted by the Centers of Disease Control. However, it is very difficult to use this limited data to evaluate the effectiveness of specific violence prevention programs. Only two *Healthy People 2010* objectives focus on youth violence:

- Reduce physical fighting among adolescents
- Reduce weapon carrying by adolescents on school property

As with domestic violence, the public health approach to youth violence prevention requires a multidisciplinary effort. School-based violence prevention includes:

- The STARS program: Student peer leaders organize classroom presentations, performances, and a conference on violence prevention
- Middle grade substance abuse and violence prevention curriculum and program coordination
- Workshops for teachers on bullying, harassment, and homophobia
- Peer mediation teams at individual schools
- A language arts based curriculum, "Voices of Love and Freedom" (provided by the Cambridge Youth Guidance Center), uses literature to explore conflict resolution and expand personal perspectives.

Community-based organizations also work closely with the Cambridge Public Schools to prevent youth violence. These community partners include the Family Center, the Cambridge Youth Guidance Center, the Dating Violence Intervention Project, CCTV-Media Literacy Project, and Peace Games.

Other programs are based in city departments. The Youth Peace and Justice Corps is run by the Peace Commission. The Cambridge Housing Authority devotes significant resources to the prevention of teen and gang violence as well as domestic violence. Positive Edge, a city program, employs street outreach workers who coordinate violence prevention and intervention with the Cambridge Police Department and the school department's Safety and Security Program. The Cambridge Police Department employs school resource officers to provide school-based support and classroom-based topic groups on issues such as sexual harassment and dating violence.

AREAS OF NEED

- ***Sustainability.*** Participants in the school department's domestic violence training program provided positive feedback and indicated the need for continuing education in domestic violence prevention, identification, and intervention. Domestic violence resource teams have been established in health centers and in the schools to improve identification and response to victims. Many city employees have received basic domestic violence information, thereby increasing the awareness of this pervasive problem.

  Each of the aforementioned initiatives had been funded by short-term grants from various sources, but none has been particularly sustainable beyond the grant funding. While the Core Group has been able to identify new money for time-limited projects, there has been limited success in developing an organizational structure to sustain the gains made in these projects.

  New funding is critical to ensure the sustainability of DVFZ training programs. Extended funding should facilitate a strong citywide infrastructure to ensure that those trained will receive the support they need to carry on their work and that there is continuing professional development for new and existing staff. Without the infrastructure, the benefits of training will rapidly disappear.

- ***Evaluation.*** Individual initiatives of the Domestic Violence Free Zone are evaluated through analyses of the projects associated with each initiative. However, a comprehensive evaluation of the DVFZ that looks for reduction of domestic violence in Cambridge is more complicated. Due to underreporting of domestic violence, as well as inadequate or inconsistent data collection methods, existing data sources do not provide sufficient information to appropriately measure a change in domestic violence in Cambridge since the inception of the DVFZ. An evaluation plan should be among the top priorities of the Domestic Violence Free Zone.

- ***Public Awareness.*** Domestic violence awareness is clearly on the agendas of city leaders. Yet awareness of domestic violence, of services for victims, and of the Domestic Violence Free Zone is limited among the general population. A public awareness campaign is necessary (and is in fact part of the DVFZ implementation plan) in order to bring this issue to the forefront within the community. Other successful public health campaigns have had measurable impacts on overall community awareness of health problems such as drunk driving and tobacco use. Acquiring financial resources to support such a project will be a focus of the DVFZ Core Group in the coming year.

CHAPTER 3: ENVIRONMENTAL HEALTH

INTRODUCTION

Environmental health comprises aspects of human health and illness that are associated with physical, chemical, and biological agents and may be triggered or worsened by social and psychological factors. Working towards a cleaner environment, reducing potentially dangerous exposures, and responding to exposure concerns are all functions of an effective public health system.

The City of Cambridge coordinates a variety of programs intended to protect residents from environmental health threats. Although enforcement and oversight for these programs rests in several city departments, there is an ongoing need for public health leadership to address environmental health issues. In addition to responding to chemical and biological exposures of concern, the Cambridge Public Health Department provides technical assistance to other city departments and intervenes in situations that cannot be fully resolved elsewhere.

The Environmental Health Unit is concerned with the broad range of human health outcomes that can result from exposures to hazardous chemical agents, fibrous minerals, environmental allergens, non-human vectors of disease, genetically altered organisms, and waterborne or foodborne pathogens. Many of these potential threats to health are not reported or tracked by traditional public health mechanisms. Nevertheless, there is a growing concern about the negative impacts environmental exposures may have directly on individuals and less directly on their susceptibility to communicable disease.

INDICATORS OF ENVIRONMENTAL HEALTH

As in other chapters of this Health Assessment, we have identified indicators of environmental health in Cambridge that correspond to objectives of *Healthy People 2010*. These indicators are discussed in this chapter.

- Hazardous materials release sites
- Bacterial counts in recreational surface water
- Drinking water quality
- Ambient air quality measurements and indexes
- Indoor air quality measurements (commercial & public sector)
- Indoor allergen levels
- Number of children with elevated blood lead levels
- Disaster preparedness plan and protocol

CURRENT ACTIVITIES

Advocacy and Responsiveness

A great variety of complaints and concerns reach the Environmental Health Unit, some directly and some by referral. The Cambridge Public Health Department has helped residents, businesses, and the municipality itself, address a range of exposure concerns and questions.

One obstacle to following through with many of the calls is determining which city departments should respond. Effective interagency communication and goodwill is the best way to handle this problem, since the uniqueness of each case prevents a standard interagency protocol.

Some cases do not present a visible code violation or an acute threat to health, but are legitimate and ongoing issues that need to be addressed. Some involve low-level exposures to specific chemicals, magnetic fields, mineral fibers, molds, or animal products or wastes. Many of these agents are not immediately apparent to inspectors and emergency responders, but may be a genuine source of concern. Such cases require a form of investigative advocacy or negotiation that can be provided by the Environmental Health Unit because of its technical expertise and statutory authority.

A Case Study

One illustration of interagency goodwill involves a recent call to the Environmental Health Unit concerning pet breeding in a residential area. The pets in question were housed in cages adjacent to the bedroom of a child who had an illness that could be worsened by airborne bacterial exposures. The child's parents were understandably alarmed that hundreds of pets were being kept so close to their child. They were aware that life-threatening respiratory illnesses can occur from inhalation of airborne feces, a particular hazard for people with vulnerable immune systems.

The City of Cambridge does not specifically restrict the breeding of this type of pet on residential property and the animals were, according to the Animal Commission, being treated with proper care. This case was amicably resolved with the cooperation of the animal breeder, the Environmental Health Unit, the Inspectional Services Department, and the Animal Commission. The solution? Moving most of the pets to a rural property owned by the breeder and moving the remaining ones indoors.

Challenges to Monitoring Environmental Health

One of the great challenges in taking full measure of the environmental health of a community is determining which type of data to track and how to gather it. The association between environmental contamination and human health is subject to some interpretation, particularly when low-level, chronic exposures are present. Infectious disease data, by contrast, represents unambiguous public health risk. However, data measuring threats to health from environmental

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A great variety of complaints and concerns reach the Environmental Health Unit, some directly and some by referral. The Cambridge Public Health Department has helped residents, businesses, and the municipality itself, address a range of exposure concerns and questions.

One obstacle to following through with many of the calls is determining which city departments should respond. Effective interagency communication and goodwill is the best way to handle this problem, since the uniqueness of each case prevents a standard interagency protocol.

Some cases do not present a visible code violation or an acute threat to health, but are legitimate and ongoing issues that need to be addressed. Some involve low-level exposures to specific chemicals, magnetic fields, mineral fibers, molds, or animal products or wastes. Many of these agents are not immediately apparent to inspectors and emergency responders, but may be a genuine source of concern. Such cases require a form of investigative advocacy or negotiation that can be provided by the Environmental Health Unit because of its technical expertise and statutory authority.

A Case Study

One illustration of interagency goodwill involves a recent call to the Environmental Health Unit concerning pet breeding in a residential area. The pets in question were housed in cages adjacent to the bedroom of a child who had an illness that could be worsened by airborne bacterial exposures. The child's parents were understandably alarmed that hundreds of pets were being kept so close to their child. They were aware that life-threatening respiratory illnesses can occur from inhalation of airborne feces, a particular hazard for people with vulnerable immune systems.

The City of Cambridge does not specifically restrict the breeding of this type of pet on residential property and the animals were, according to the Animal Commission, being treated with proper care. This case was amicably resolved with the cooperation of the animal breeder, the Environmental Health Unit, the Inspectional Services Department, and the Animal Commission. The solution? Moving most of the pets to a rural property owned by the breeder and moving the remaining ones indoors.

Challenges to Monitoring Environmental Health

One of the great challenges in taking full measure of the environmental health of a community is determining which type of data to track and how to gather it. The association between environmental contamination and human health is subject to some interpretation, particularly when low-level, chronic exposures are present. Infectious disease data, by contrast, represents unambiguous public health risk. However, data measuring threats to health from environmental

exposures are often an indirect indicator of risk subject to some basic assumptions (i.e., these symptoms are closely associated with this chemical or biological agents). The ability to produce authoritative clinical evidence that reveals the distinct cause or causes of environmental health effects lags far behind the capacity to identify the microbial agents responsible for "germ-derived" illnesses. The environmental health objectives identified in *Healthy People 2010* indicate that non-infectious threats to public health have gained recognition more rapidly than most categories of health in past several years. Brief discussions about specific exposure sources and corresponding data collection challenges are discussed below.

Hazardous Waste Sites

As articulated in *Healthy People 2010*, the goal in assessing the impact of hazardous waste sites is to "minimize the risks to human health and the environment posed by hazardous sites." To measure progress toward this broad goal a list of these sites has been compiled (National Priority List, RCRA facilities, and other "brownfield" properties), and each site is monitored for progress. The Cambridge Public Health Department has established a database that facilitates the ongoing scrutiny of all hazardous waste sites in the city that are regulated under state or federal law. The challenges in reviewing the cleanup and regulation of these sites include many interlocking zoning and public health issues that arise when a known hazardous release site is being excavated and developed.

Issues that bring residents to the discussion are not neatly defined by category. Some residents may be more concerned about traffic density, while others may be focused on increasing or maintaining open space in the neighborhood. Still others may have anxiety about potential exposures to hazardous materials that they believe have not been properly characterized. At a time of rapid development, further losses of open space, and expanded attempts to utilize recently undisturbed industrial land need to be addressed. The legal limits of municipal control over private property are always pushing back on those demanding greater sensitivity to local priorities.

Drinking Water

The quality of drinking water is included in the *Healthy People 2010* target list of environmental health measures. The recommended parameter counts the number of violations of EPA water quality standards over time. High water quality, taken for granted in many American communities, shields those with access to it from countless intestinal illnesses. Treated water released from the Cambridge Waterworks at Fresh Pond is historically quite good. Although concerns about drinking water quality (e.g., bacterial contamination, discoloration, malodor, lead content) have been reported to the Public Health Department, the city has had no violations of EPA water standards since a single monthly exceedance in 1994. Cambridge has even won regional awards for the pleasant taste of its water.

The new water treatment plant is due to go online in January 2001. Ongoing upgrades to the water delivery system will improve the quality even further. The new plant will improve

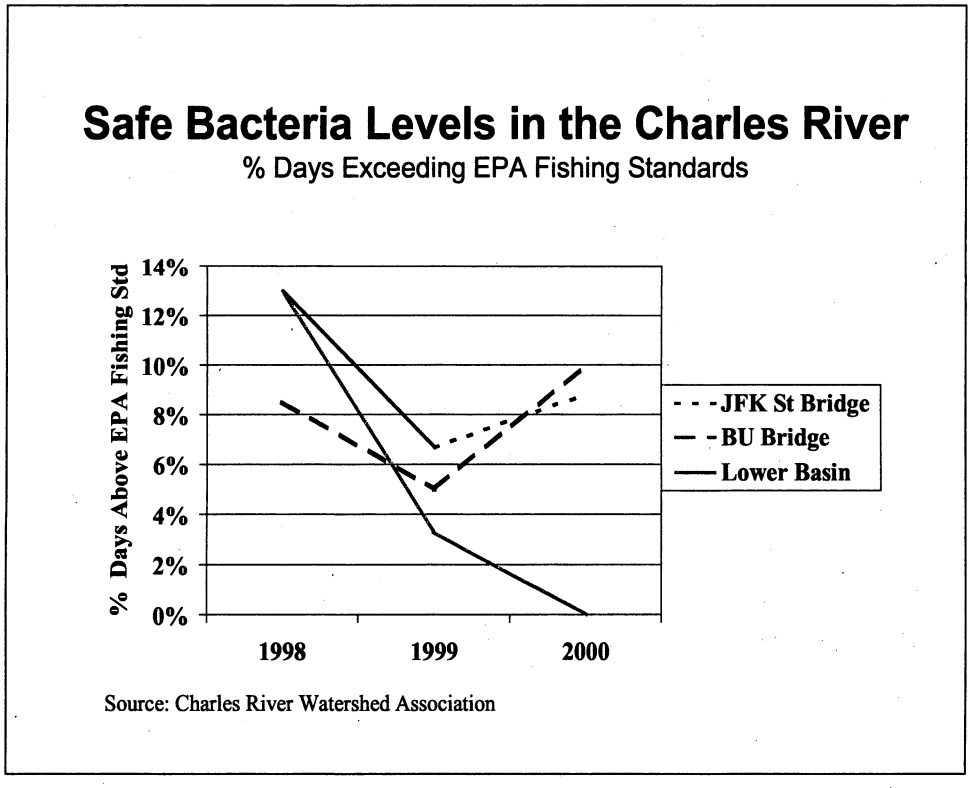
treatment efficacy by employing ozone to neutralize microbial contaminants and will improve water quality and taste by reducing the need for chlorinated chemical additives.

However, problems in observed tap water quality may still be present since algae-clogged and corroded pipes serve many older apartment buildings and homes. Because these pipes lie on private property, they are the responsibility of the property owner. As a result, quality can vary considerably from one customer to the next. Efforts to encourage landlords and homeowners to replace service pipes have included coordinating state funding to ease the financial burden. Overall, water quality does not represent a great source of risk to the health of most Cambridge residents, but individuals with concerns are encouraged to follow-up with local health and water officials.

The Charles River

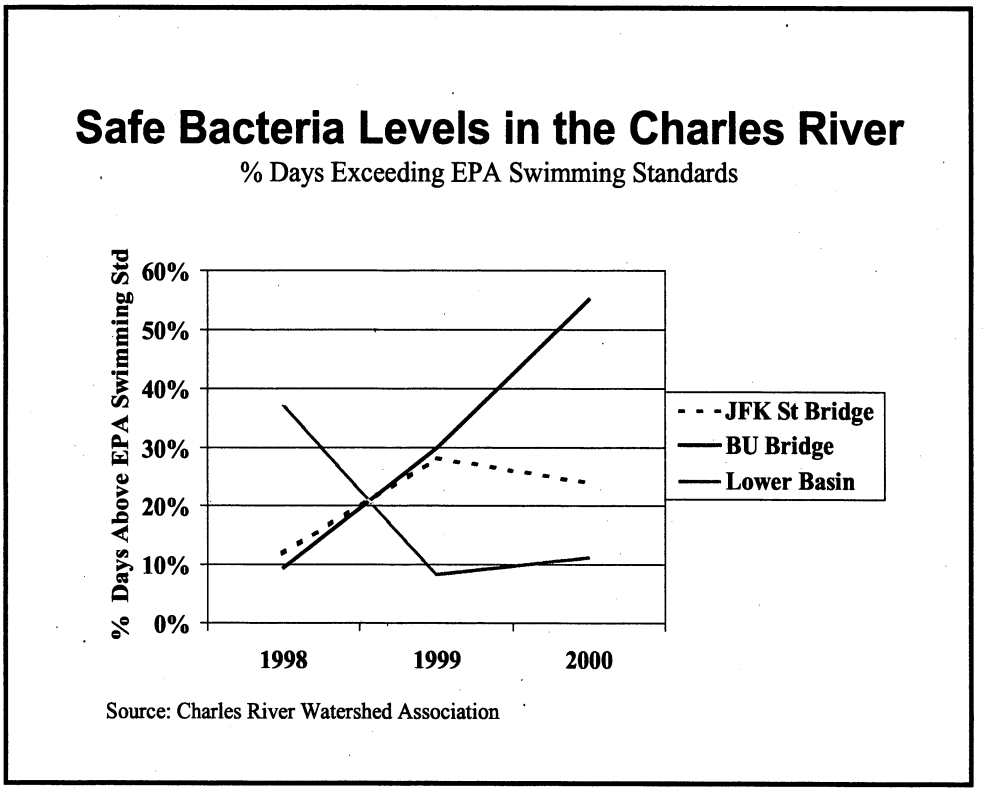
Health risks from poor surface water quality have been included in *Healthy People 2010* as a primary indicator of environmental health. Separate parameters for beach closings, fish contamination advisories and bacterial counts are recommended. Of these measures bacterial counts are the most relevant to the Charles River, since there are currently no public beaches and fishing in the lower basin is not widely practiced. High bacterial counts most clearly represent the primary health risk to those who sail and row on the river. The Charles River Watershed Association now partly addresses the need for rigorous bacterial data with a seasonal water-testing program. However, the history of bacterial pollution in the Charles poses more than a technical challenge to the state, the Metropolitan District Commission, and the cities and towns that touch its banks. There is a persistent view that the river is hopelessly unclean and unhealthy despite dramatic improvements in water quality over 10 years, as measured by bacterial counts.

Nothing short of a major regional conservation effort to improve access to the river and a major promotional campaign to highlight the tremendous strides made in preventing sewage run-off from reaching its waters will begin to turn the tide of public perception.



Source: Charles River Watershed Association

Between 1998 and 2000, bacterial levels in the Charles River were above EPA safe fishing standards (1000 "colony forming units" of fecal coliform bacteria per 100 ml of water) on fewer than 14% of all days tested at three sites adjacent to Cambridge. The number of days on which these standards were violated, dropped to zero in the Lower Basin in 2000, but ranged between
8 % and 10% at the other sites.



The percent of days in each year during which the Charles River exceeded the EPA health standard for public swimming (200 "colony-forming units" of fecal coliform bacteria per 100 ml of water) varied from one location to another. Water tested at the Lower Basin (near MIT and the Back Bay) showed a significant reduction in days considered unhealthy for swimming from nearly 40% in 1998 to around 10% in 2000. Testing near the BU Bridge and the JFK Street Bridge revealed that EPA swimming standards were exceeded as often as one-half of the time in 2000. This was a significant increase for both locations from 1998 and 1999, possibly reflecting greater rainfall and more storm-sewer overflow events.

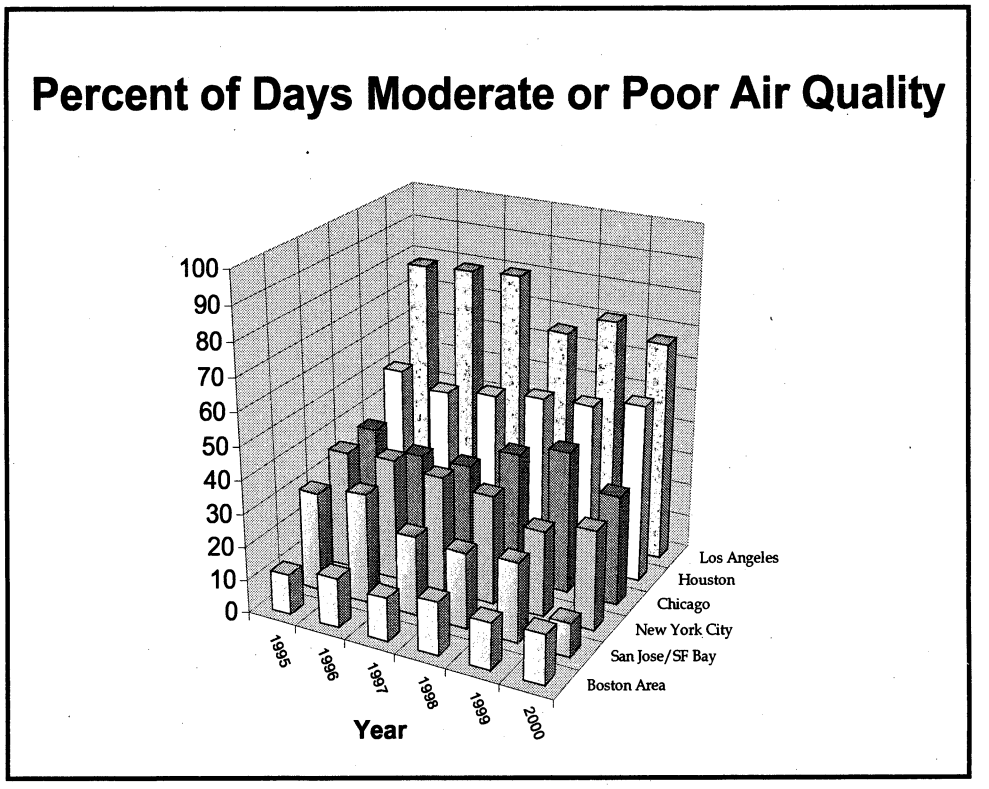
Air Quality

Air quality is by far the area of greatest public concern to the Environmental Health Unit. Air quality complaints can be divided into three main categories: indoor air quality, ambient outdoor air quality, and other exposure sources.

Indoor air quality complaints and concerns can originate from chemical and biological sources, including mold, noxious gases (e.g., automobile fumes, leaky stoves and pumps, improperly stored chemicals), poor air circulation, cigarette smoke, proximity to a commercial or industrial source, and improper renovation and construction practices.

The many possible sources of poor indoor air offer clues in an investigation, often revealed by the pattern of respiratory symptoms reported. Complexities arise when the sources of these health effects are not clear after examination or testing. In some cases there is an individual who has great sensitivity to certain chemicals that do not appear to affect others. This creates regulatory challenges, particularly when testing indicates that some of the chemicals of concern are present, but only at very low levels. Other obstacles arise when testing does not reveal any specific exposures at levels of concern or when financial barriers prevent an individual from seeking remediation. These scenarios require a mix of detective work, creativity, and direct exercise of statutory authority to protect the public's health.

Because sources of poor outdoor air are generally more obvious than those for indoor air, ambient outdoor air quality issues can often be referred to the appropriate code enforcement agency (e.g., police, fire, or inspectional services). Nevertheless, many instances of persistent odor or fumes from a commercial enterprise remain with the Environmental Health Unit because no clear violations of state standards have been demonstrated. Ambient air concerns tied to multiple offending sources often remain unresolved until larger decisions are made about zoning and traffic engineering.



Air quality is assessed using the EPA Pollution Standard Index (PSI). Moderate air quality is given a PSI value between 50 and 100; poor air quality is assigned a value above 100. PSI combines the impact of all six National Ambient Air Quality Standard pollutants: ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, particulate matter (<10 micrometer size), and lead.

Healthy Homes

Healthy Homes is a new program (est. 1999) that addresses the growing prevalence of childhood asthma in Cambridge by helping families understand and manage childhood asthma.

The primary goals of Healthy Homes are to improve the living conditions of young children and to enhance the delivery of clinical services for pediatric asthma patients (aged 0-10 years). Services are delivered through home visits, community education, and case management activities. Living conditions are improved by inspecting homes to identify asthma triggers and other safety hazards, providing advice on removing hazards from the home, and advocating for families in need.

Healthy Homes enhances patient care by interacting extensively with families and primary medical providers to ensure that each child is receiving optimal therapy. This includes an assessment of each child's asthma severity, direct parental education to explain medications and other medical issues, and informing providers about increased symptom frequency and medication adherence problems. This parallel system of reducing asthma triggers while improving patient care in both the home and the provider's office gives these children the best chance of living healthier lives.

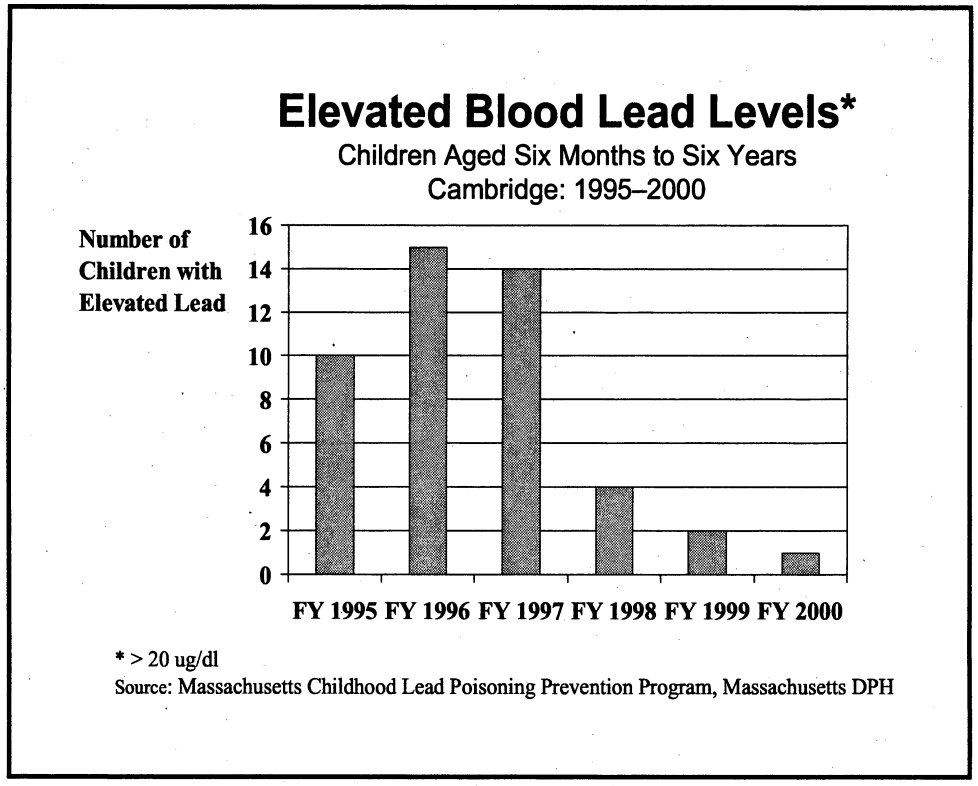
Statistics generated by the Healthy Homes program indicate a continuing need for services for pediatric asthma patients. Over the nine-month period, from January to September 2000, Healthy Homes visited 49 families and identified the following conditions:

Potential Hazard	# of Homes	% of Homes
Evidence of rodents in the home	24	49%
Evidence of cockroaches	17	35%
Excessive mold growth	21	43%
At least 1 smoke detector not working or missing	14	29%
Security issues (broken door/locks)	7	14%
Smoking in home	11	22%
Furry/feathered pets in home	13	27%
Humidifier used	14	29%
Mold growth identified in humidifier	9 of 14	64%
Clothes dryer vented improperly	5	10%
Probable lead paint violations (child under six years in residence)	17	35%

Lead Poisoning Prevention and Surveillance

The City of Cambridge is a renowned leader in the battle against childhood lead poisoning. Three city departments in Cambridge work cooperatively in a coordinated prevention effort. The Community Development Department, through its nationally recognized Lead-Safe Cambridge program, provides landlords with attractive financing packages to remove lead from their buildings. The program also provides free lead testing for children, and nursing services for those identified with high lead levels. The Inspectional Services Department conducts in-home lead testing by parental request. When lead violations are identified, Inspectional Services enforces state regulations requiring its removal. Property owners cited by inspectors are automatically referred to the Lead-Safe program for financial assistance.

The Cambridge Public Health Department complements these efforts. The Massachusetts Department of Public Health contracts with Cambridge to provide lead poisoning prevention and education through its Healthy Homes Program.



The number of Cambridge children six months to six years of age with elevated blood lead levels (>20 micrograms/deciliter) fell consistently between 1996 and 2000.

West Nile Virus

One particularly difficult issue in 2000 concerned the local response to the threat posed to residents from the newly arrived West Nile Virus. Substantial efforts to limit the size of the mosquito population at the larval stage.

Unlike most transient viruses, West Nile is associated with severe encephalitis and meningitis among a small percentage of the exposed population. In 1999, this pathogenic virus caused several deaths in New York City.

The initial decision to spray in Cambridge was made in mid-August, nearly three weeks after Boston and Brookline first conducted spraying efforts to reduce the risk of West Nile transmission to humans. Centers for Disease Control and Prevention (CDC) guidelines for local and state health departments clearly recommended consideration of ground spraying to abate adult mosquitoes within a two-mile radius of a West Nile-infected bird. This guidance was consistent with the observation of a cluster of West Nile-induced encephalitis cases within an approximate two-mile radius of Queens, New York in 1999. It is also consistent with the observation that *Culex pipiens* (the mosquito species most closely associated with transmission of this virus) has a similar outer range of movement when searching for its blood meal.

The decision to spray in Cambridge was not made immediately after the first infected bird was discovered within two miles of the city. Additional information in mid-August suggested that the Brookline-Boston-Cambridge area could indeed become part of a dense cluster of West Nile transmissions among mosquitoes, birds, and humans. If a local outbreak were to become established in Cambridge and Brookline, as it had in parts of Queens and the Bronx last year, we could anticipate a significant number of serious illnesses. Of the 46,000 Queens residents thought to be the focal point of the New York City outbreak, eight individuals were hospitalized with viral encephalitis. Most of these individuals required respiratory support. A serological study conducted in the same area estimated that between 1.2% to 4.1% of the local population (533 to 1,903 people) had been infected with the virus, of whom the great majority had no symptoms. Cambridge has slightly more than twice the population of the Queens neighborhood examined in this study and thus could have experienced twice the number of infected residents.

The decision to apply pesticides, even relatively mild ones, from trucks across the city was not made without consideration of the possible public health consequences. Although state and federal public health agencies did advocate the use of spray to limit exposure to adult mosquitoes, many residents expressed concern about the citywide application of these chemicals. Balancing the risks and perceived risks posed by this relatively mild insecticide against those posed by the virus itself was not a simple task. The decision was made with the best information available and only after adjacent communities began to accumulate large numbers of infected birds and the first infected mosquito pools.

Public meetings were held several days before and immediately after the initial spraying effort in an attempt to provide information to and receive feedback from concerned residents. We had a

great interest in informing and hearing from the public. It was also clear that the short-term decision would remain with the Public Health Department and the city manager. Much of the feedback we received was in response to the spraying notices we had delivered to radio, television, and print media outlets. Many more calls to public health were received after DPW trucks announced spraying several hours ahead of the spray trucks.

While many individuals expressed concern or had questions about the spraying, we also received calls from individuals who were grateful for this action or who were concerned that their neighborhood might not be covered by the spray. The Public Health Department devoted enormous staff resources to answering questions from the public about appropriate steps to take during the spraying and responding to criticism from residents who strongly opposed the effort. Public health nurses and administrative staff answered hundreds of phone calls before and after each of the three spraying campaigns, often until 9:00 p.m. or 10:00 p.m. We also established a West Nile InfoLine to provide up-to-date information on the dates and times of spraying, and the areas that would be affected.

In fall 2000, anticipating our next mosquito season, the department began to plan for future response to West Nile Virus. After responding to City Council questions and meeting with the Health and Environment subcommittee earlier this fall, a public hearing has been scheduled for late January 2001. The Cambridge Public Health Department is also involved in the West Nile Virus Strategic Planning process at the state level. The Massachusetts Department of Public Health is working with cities and towns to establish a more consistent regional approach for responding to West Nile in the future.

Emergency preparedness: Chemical and Biological Releases

Healthy People 2010 has included "Disaster preparedness plans and protocols" within the Healthy Homes/Healthy Communities section. Preparations and plans for a major chemical or biological emergency are largely coordinated within a local emergency planning committee (LEPC) that includes local industry, universities, police, fire, ambulance, hospitals, and biotech firms. The Cambridge Public Health Department works actively with the LEPC to prepare for natural and human-made emergencies that could represent a major threat to the health and safety of residents. The LEPC conducts quarterly meetings and convenes a dozen subcommittees covering issues such as community risk assessment, biotechnology, preparedness protocols, and bioterrorism.

Cambridge Public Health Department staff members have participated in the Bioterrorism and Health and Hospitals subcommittees. They also play an active role in the annual citywide preparedness drills led by the LEPC and the Cambridge Fire Department. Public health staff members have completed OSHA-certified training in first response to a bioterrorism/weapons of mass destruction incident.
In October 2000, the Cambridge Public Health Department coordinated a CDC-sponsored evaluation of local preparedness for chemical or biological emergencies, with the cooperation of the Massachusetts Department of Public Health, local hospitals, the Fire Department, and the

Cambridge Emergency Management Department. The Cambridge LEPC, the most active in the state, has done much more planning than most communities. This was reflected positively in our performance on this evaluation.

AREAS OF NEED

- ***Limited Environmental Data.*** As discussed in this chapter, many environmental conditions that pose human health hazards are not generally tracked and thus data are not collected or analyzed in a public health context. For example, there is no local air quality data for Cambridge.

- ***Limited Asthma Data.*** There are very limited asthma data both locally and nationally. Asthma incidence is difficult to track. One traditional measure of asthma incidence was hospital admissions. However, this is no longer a useful indicator as patients are more often kept in an emergency department for "an observation day" rather than admitted. Unlike for communicable diseases, there are no registries of asthma.

- ***Capacity.*** The need for indoor air quality investigations in homes, business, and public buildings exceeds department capacity. Additionally, there is an ongoing need to investigate outdoor chemical exposures.

- ***Food Safety.*** There is a need to provide public education on food safety issues, including genetically modified food, and food handling and storage.

CHAPTER 4: HIV/AIDS

INTRODUCTION

The AIDS epidemic represents one of the most significant threats to human health in modern history. While recent advances in treating people infected with the Human Immunodeficiency Virus (HIV) are encouraging, the rates of infection remain alarmingly high, particularly among certain subpopulations. Given that the disease manifestations of HIV are fatal, prevention of HIV transmission is crucial to end the epidemic. Early detection and treatment are extremely important for infected individuals. These services are not accessible to the vast majority of people who are at the greatest risk.

HIV/AIDS is a medical condition that has always had a strong sociopolitical component. On October 5, 2000, the U.S. House of Representatives and the U.S. Senate both unanimously reauthorized the Ryan White Care Act, a $1.7 billion federal program that funds primary health care and supportive services to people with HIV and AIDS.

INDICATORS OF HIV/AIDS

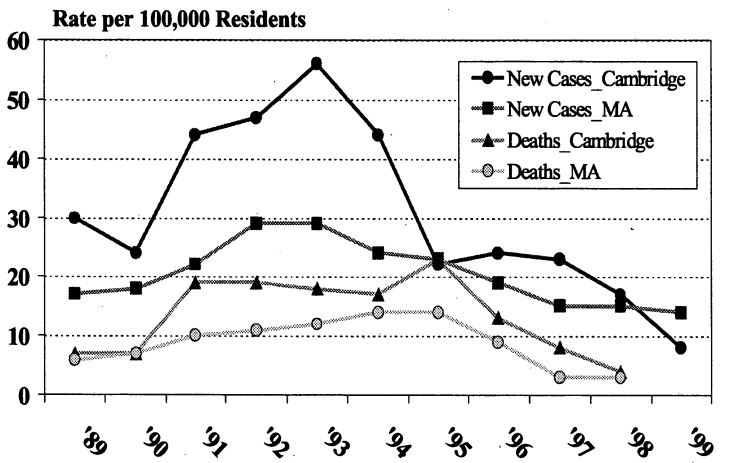
The indicators used to measure progress in the fight against HIV/AIDS have changed over time. In the early years, AIDS diagnosis and death rates due to AIDS, both indicators of late-stage disease, were the only available statistics. As understanding of the disease has increased and new treatments have been developed, indicators have been identified that measure rates of transmission and progression from HIV infection to AIDS diagnosis. These indicators and data collection systems are currently in development.

The following are selected *Healthy People 2010* indicators. Relevant Cambridge data are included in this chapter.

- New AIDS diagnoses
- Condom use among sexually active adolescents
- Deaths from HIV-infection

New AIDS Diagnoses and AIDS-Related Deaths

Cambridge: 1989–1999

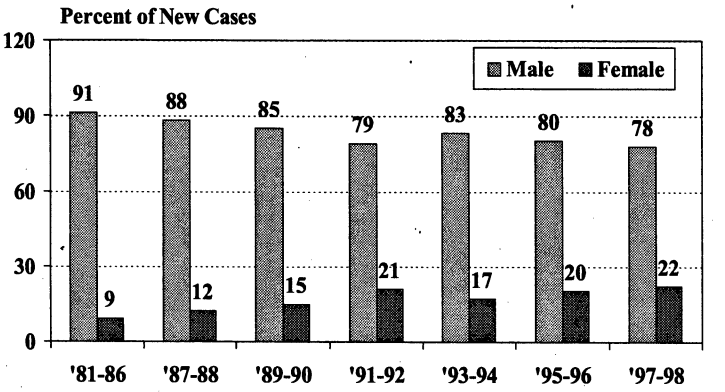


Death rates are age-adjusted
Source: AIDS Surveillance Program, Mass DPH, November 1, 2000

The rate of newly diagnosed AIDS cases in Cambridge peaked in 1993 at 56 per 100,000 and declined to 8 per 100,000 in 1999. The AIDS death rate in Cambridge peaked at 23 per 100000 in 1995 and then fell to 4 in 1998. AIDS diagnosis and AIDS-related deaths in Cambridge declined faster than statewide.

AIDS by Year of Diagnosis and Sex

Cambridge: 1981–1998

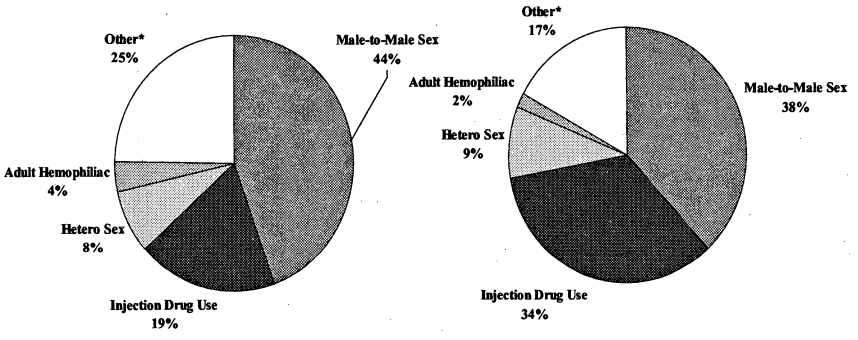


413 cases reported as of 11/1/2000
Source: AIDS Surveillance Program, Mass DPH

The proportion of women diagnosed with AIDS has increased from 9% in the period from 1981 to 1986 to 22% between 1997 and 1998.

AIDS by Transmission Mode

Cambridge: 1981-1999

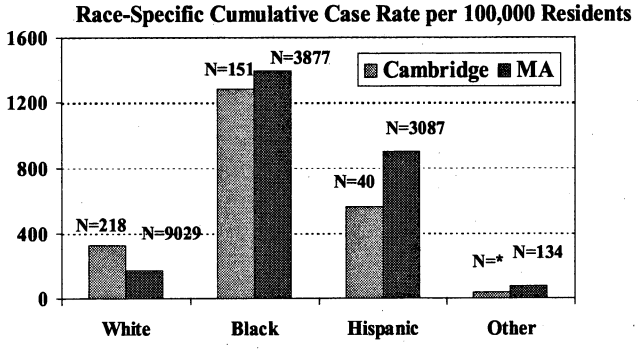


413 cases reported in Cambridge and 16,127 cases in MA as of 11/1/2000
*Other includes pediatric cases and undetermined.
Source: AIDS Surveillance Program, Mass.DPH

In Cambridge 44% of AIDS cases were transmitted through male to male sex and 19% by injection drug use. In Massachusetts, injection drug use accounted for 34% of cases.

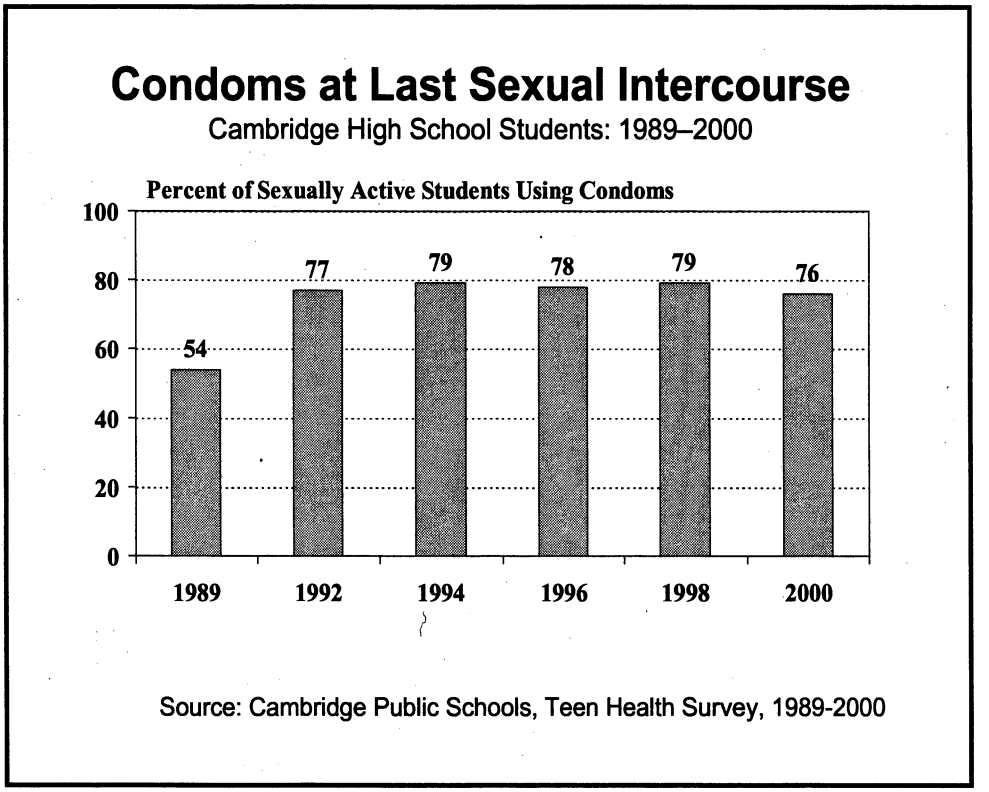
AIDS by Race/Ethnicity

Cambridge: 1981–1999



413 cases reported in Cambridge and 16,127 cases in MA as of 11/1/2000
* less than 5 cases; Rates are based on 1997 MISER estimates
Source: AIDS Surveillance Program, Mass DPH

In Cambridge, the race-specific cumulative case rate for AIDS was higher for Blacks (1286 per 100,000) and for Hispanics (560 per 100,000) than Whites (325 per 100,000). A similar disparity is also seen statewide.



Condom use by Cambridge high school students rose from 54% in 1989 to 77% in 1992 with the introduction of condom distribution in the school. It has steadied since.

An additional measure of local HIV prevention in Cambridge is utilization of the needle exchange program.

CURRENT STATE OF HIV/AIDS IN CAMBRIDGE

Organizations in Cambridge have received money from the Ryan White Care Act for the past ten years and continue to offer quality primary care for people with HIV. They have also provided prevention programs for individuals and communities at highest risk. The challenges associated with providing HIV care and running effective prevention programs have changed dramatically during the past two decades.

The current challenges include prescribing and supporting adherence to complicated medical regimens, dealing with the side effects of potent medications, and co-infection with hepatitis C. Additionally, since HIV-infected individuals are surviving longer, the issues they face have changed. These individuals are challenged with the concept of living with a chronic life-threatening disease while maintaining behaviors that prevent transmission of the virus.

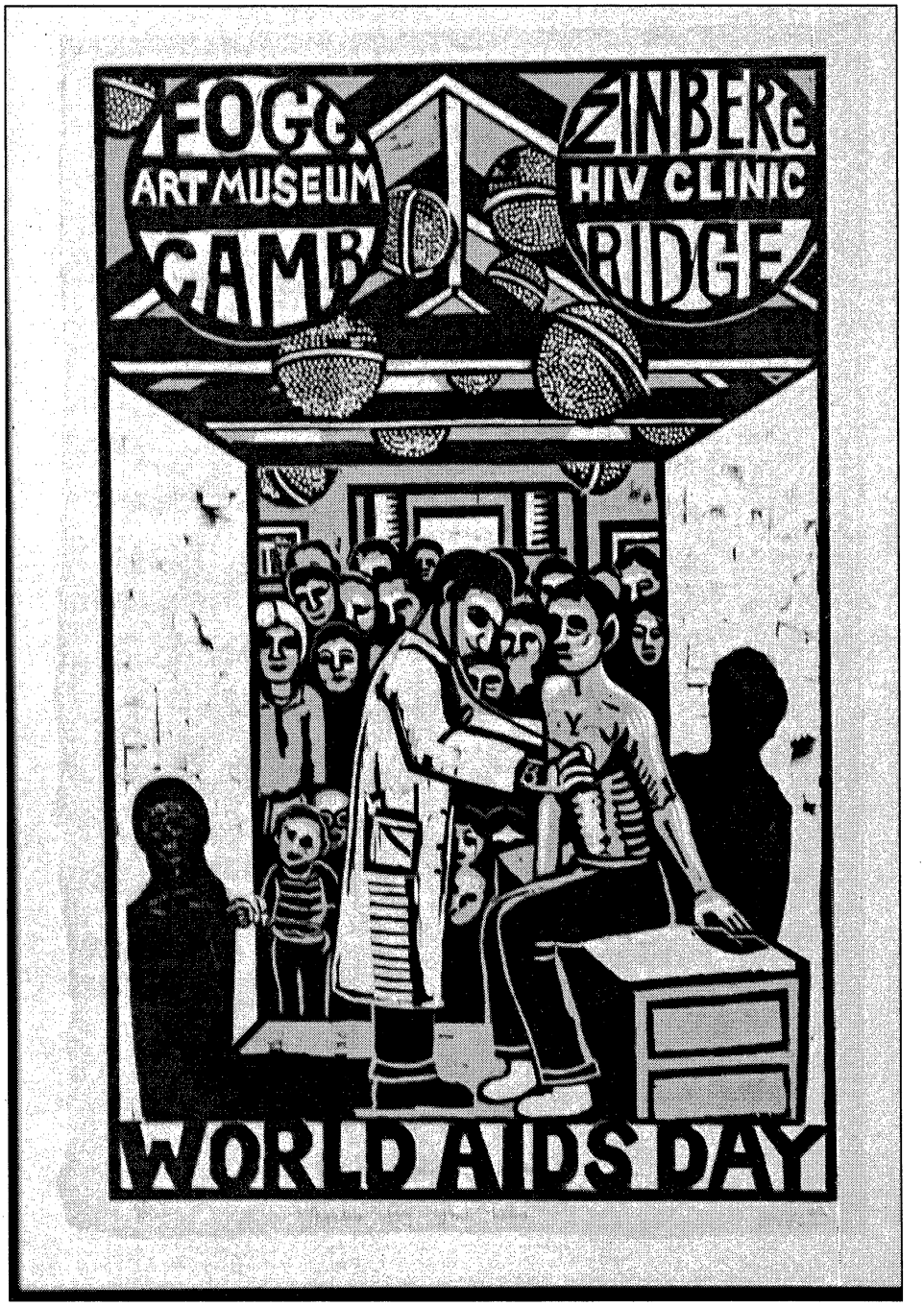
Individuals infected with HIV often face rejection by their communities and families. Enormous stigma and denial about HIV still exist in many communities. The stigma inhibits disclosure of HIV status, which in turn feeds denial. While tremendous progress has been made in the medical treatment of the virus, stigma and denial have allowed the virus to grow and spread within communities, including our own in Cambridge. We can challenge these obstacles by keeping HIV in the public eye, in the media, in our conversations, and on our agendas.

Despite the wealth of information available on HIV/AIDS prevention, new infections continue to occur. The epidemic is still devastating disenfranchised communities. For several years, the number of newly identified infections among women of color nationwide has continued to grow at a rate exceeding that of any other segment of the population. This data is difficult to verify at the local level in Cambridge.

PROGRAMS

The Cambridge Health Alliance has a wide array of comprehensive care for HIV-infected patients. The HIV Prevention and Services Program, in the Division of Community Affairs, offers prevention programs in the Haitian and Latino communities. Bilingual, bicultural professionals provide counseling and testing at primary care sites throughout the Alliance. The Zinberg Clinic provides primary health care, psychiatric care, and social services to individuals and families living with HIV. HIV primary care, mental health care, and case management are integrated into the primary care delivery system in the Somerville health centers. Cambridge Cares About AIDS offers extensive social services including counseling, housing, needle exchange, and other essential support services. Numerous community prevention programs are housed in agencies such as Concilio Hispano, the Massachusetts Association of Portuguese Speakers, and CEOC.

The Cambridge Health Alliance has continued to document positive outcomes for a majority of its HIV-infected, primary care clients. Approximately 75% of clients for whom laboratory tests were available showed either stabilization or a decline in the amount of virus in their blood. Almost half of the clients had an undetectable viral load, which means there was very little virus in the blood. This clinical state is often accompanied by a regeneration of the immune system and individuals reporting that they feel quite well. Although the new medications are often difficult to take correctly and have numerous potential side effects, they are helping many individuals stay healthier for longer periods of time.



Hepatitis C co-infection (infection with both viruses) continues to be a major challenge to HIV care. (Some estimates indicate that up to 90% of individuals who have injected drugs are infected with hepatitis C.) Because hepatitis C is a newly identified virus, testing and care are in their very early stages. In general, we have been confronted with many more questions than answers. Since individuals with hepatitis C tend to have risk factors for HIV as well, education and case management for hepatitis C has been integrated into HIV prevention and services at the Cambridge Health Alliance. Clients in many different settings are becoming better informed about hepatitis A, B, and C; they are receiving vaccinations when possible; and they are making informed choices about their health care.

Two major goals of the hepatitis program (described in greater detail in the Public Health Nursing section, in Chapter 6: Health Promotion and Disease Prevention) and the HIV program are linking individuals to appropriate primary care providers and encouraging them to become effective advocates for their own health care.

New immigrants make up approximately half of the new HIV-infected patients at the Cambridge Health Alliance. Many are simultaneously diagnosed with HIV (presence of the virus) and AIDS (a later stage of infection in which the immune system has been significantly weakened), signifying a missed opportunity to provide medical interventions that could have delayed the AIDS diagnosis. For many individuals, clinical illness and physical pain could have been avoided had the infection been detected earlier.

The Alliance offers several prevention programs in the Haitian and Latino communities that incorporate community-organizing strategies. In addition, new targeted prevention efforts are underway in the Portuguese-speaking community. In June 2000, a successful campaign to encourage testing for HIV was implemented. Nearly 200 Brazilians sought out testing and received counseling and education about individual risk reduction. An ongoing prevention and education program emerged from the enthusiasm generated by this initiative.

Cambridge Cares About AIDS operates a needle exchange program which gives clean hypodermic needles to individuals who use injection drugs. The program is open 40 hours per week and serves 250 individuals each month. Exchange sites include First Church in Harvard Square, the Zinberg Clinic at The Cambridge Hospital, the Albany Street Shelter, and a site adjacent to the Cambridge Cares home office. Through 6 years of needle exchange operation, additional services benefiting the injection drug users have been identified and implemented, including hepatitis A and B vaccinations, and screening for hepatitis C.

AREAS OF NEED

- ***Hepatitis C.*** Hepatitis continues to challenge both HIV care and prevention efforts, particularly among current and former injection drug users. Co-infection with HIV and hepatitis C challenges the treatment of both diseases. However, many lessons were learned when HIV was in its infancy. Those lessons can be applied to hepatitis prevention, testing, and treatment programs to enhance their effectiveness.

- ***Communities at Risk.*** The demographics of people with newly identified HIV infection continues to reflect increasingly disenfranchised populations. In Cambridge, as well as in Greater Boston, a significant number of new infections are among men who have sex with men. Within this group, men of color continue to be disproportionately affected. Among immigrant communities, heterosexual transmission continues to be the major mode of transmission. Many women who test positive for HIV report that their only exposure to the

virus was sexual contact with their primary partner. Culturally appropriate, clear, and specific prevention messages need to be presented to these communities. Within established communities of color, many modes of transmission of the virus have been identified, thus making varied and specific prevention messages imperative.

- ***A Global Perspective.*** While we focus our efforts on HIV/AIDS treatment and prevention, experiencing the successes and challenges of the work in Cambridge, it is imperative to view our local efforts in the broader context of a global epidemic. HIV and AIDS are devastating parts of Africa, Asia, and developing countries in other parts of the world. In the United States, we are fortunate to have had the human and financial resources to make phenomenal progress in the past 20 years in preventing and treating HIV/AIDS. While financial resources are essential, human expertise, commitment, compassion, and tenacity are the most effective tools for dealing with HIV in Cambridge, the United States, and around the world.

- ***Substance Abuse Treatment.*** To decrease HIV transmission and to improve outcomes for those already infected, there must be better access to drug and alcohol treatment for individuals who need detoxification and acute inpatient services.

- ***Other Service Needs.*** Affordable and decent housing is imperative for HIV-infected individuals and their families. This is nowhere more true than in Cambridge.

CHAPTER 5: SUBSTANCE ABUSE PREVENTION

INTRODUCTION

The harmful and negative health effects of alcohol and drug abuse are an immense burden on the community. Family, social, legal, and treatment costs of alcohol and other drug use are enormous. Substance abuse is associated with violence, sexually transmitted diseases, low worker productivity, devastating and costly medical conditions, motor vehicle crashes, and accidental injury.

Although Cambridge is fortunate to have a variety of substance abuse services, the capacity of these programs is limited and additional treatment opportunities are still needed. Evidence of continuing alcohol and drug use among adolescents indicates a need for more effective prevention efforts.

This chapter describes indicators of substance abuse, addresses current efforts to improve adolescent substance abuse prevention, and presents a brief outline of treatment options for adults in the city.

INDICATORS OF SUBSTANCE ABUSE

As in other areas, indicators from *Healthy People 2010* are useful benchmarks for examining substance abuse in Cambridge. The following are selected indicators. Relevant data is included in this chapter as well.

- Adolescent use of alcohol, tobacco, and other drugs
- Binge drinking by adolescents
- Community partnerships and coalitions to conduct substance abuse prevention efforts
- Drug-induced deaths
- Drug-related hospital emergency department visits

SUBSTANCE ABUSE DATA

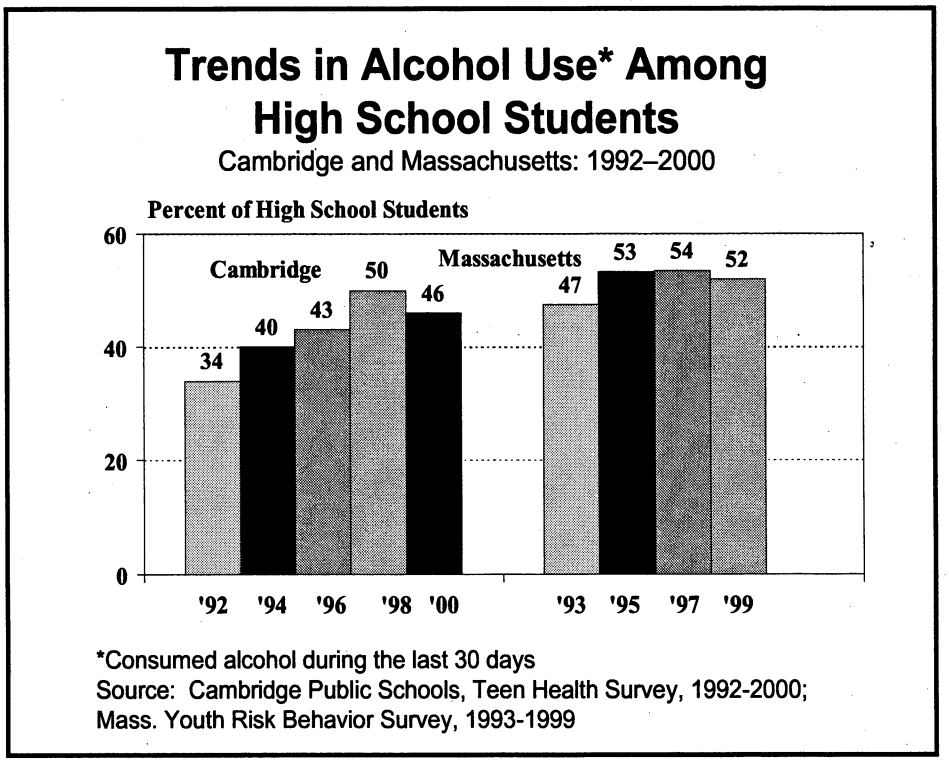
In Cambridge, we are fortunate to have considerable trend data on adolescent drug and alcohol use from student health surveys conducted at Cambridge Rindge and Latin School and in the middle grades. The Teen Health Survey and the Middle Grades Survey, which are administered in alternate years, provide valuable information about the health risk behaviors of Cambridge youth. Much of the data is comparable to information on the national level collected through the Youth Risk Behavior Survey.

The student health surveys monitor substance abuse as well as other health risk behaviors among Cambridge youth. This ten-year-old project is the result of a successful long-term partnership between the Department of Human Service Programs, the Cambridge Public Schools, and the Cambridge Health Alliance. The Teen Health Survey and the Middle Grade Health Survey are administered on alternate years.

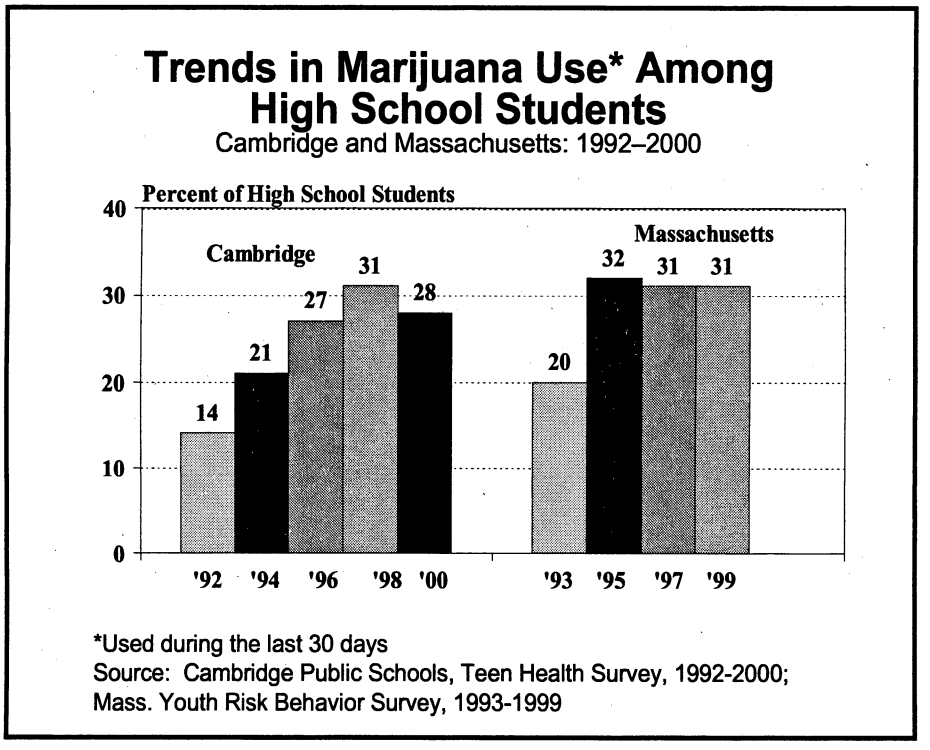
Data on adult substance use in Cambridge is less robust. The Behavior Risk Factor Survey is an instrument administered nationally, but a comparable local survey has not been attempted in Cambridge. However, there is high likelihood that the Institute for Community Health will conduct the adult Behavior Risk Factor Survey within the next two years, giving us access to more accurate local data.

Alcohol, Tobacco, and Other Drug Use Trends Among Cambridge Adolescents

The current use of alcohol, tobacco, and marijuana—the drugs most commonly used by Cambridge teens—increased between 1992 and 1998 and declined between 1998 and 2000. The survey defines "current use" as use of a substance within the last 30 days.



Current use of alcohol by Cambridge high school students rose from 34% in 1992 to 50% in 1998, then decreased to 46% in 2000.



Marijuana use among Cambridge high school students rose from 14% to 31% between 1992 and 1998 and then decreased to 28% in 2000.

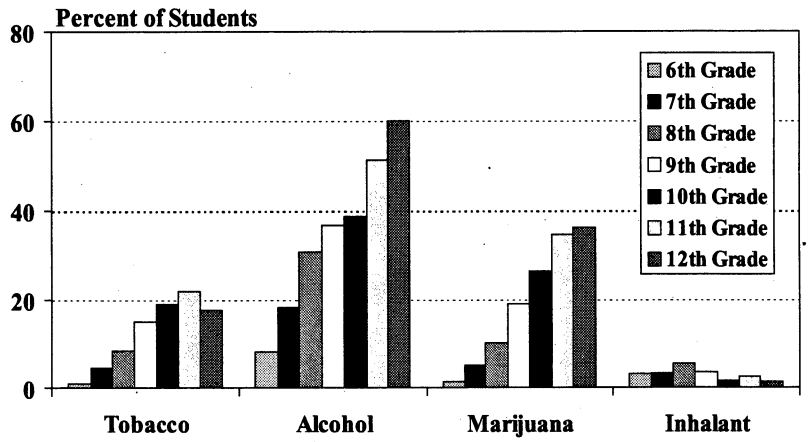
Trends in tobacco use among high school students is reported in Chapter 6: Health Promotion and Disease Prevention, in the tobacco control section.

Data from the 1999 Cambridge Middle Grade Health Survey also showed a slight reduction in reported 30-day substance use from the 1997 survey.

Nonetheless, substance use rates are still high (see graph on following page). In 1999, nearly one-fifth (19%) of middle school children reported drinking alcohol during the past 30 days, 5% reported smoking cigarettes, 6% reported smoking marijuana, and 4% reported using inhalants. Drug use was present even among the youngest students. For example, current use of alcohol among sixth grade students was 8%; current use of cigarettes, 1%; current use of marijuana, 1%; and current use of inhalants, 3%.

Current* Substance Use Among Students by Grade

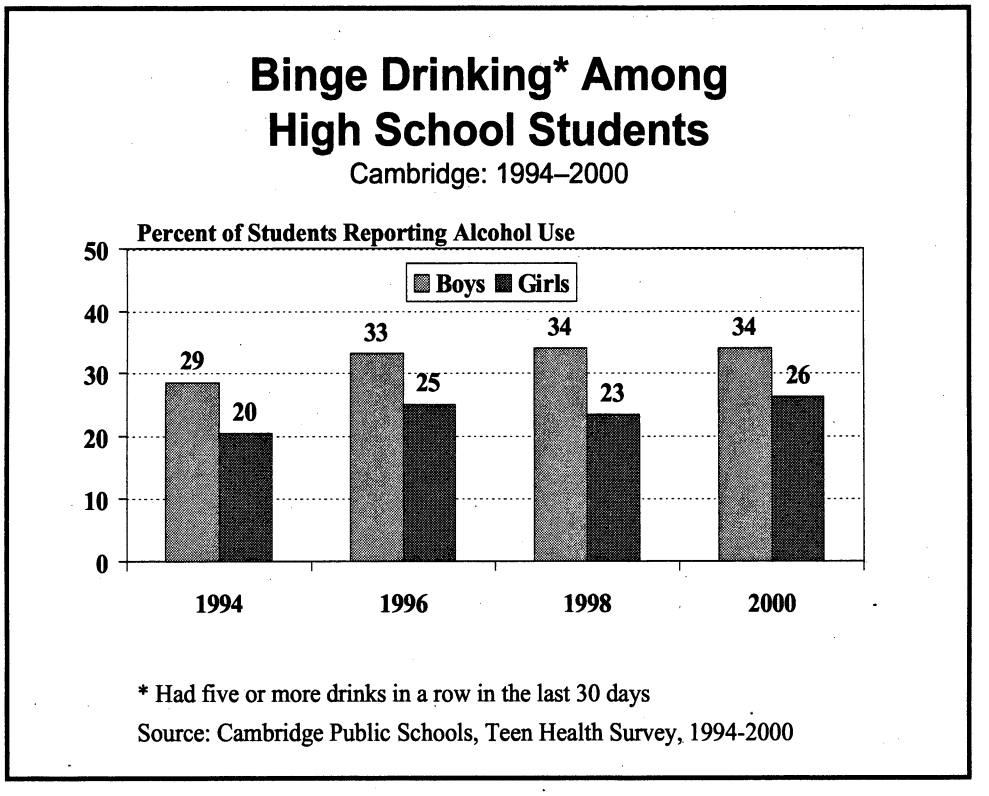
Cambridge Middle & High School Students



*Used during the last 30 days
Source: Cambridge Middle Grades Health Survey 1999; Cambridge Public Schools; Teen Health Survey 2000

Older teens generally use tobacco, alcohol, and marijuana more than by middle grade students. Inhalant use, on the other hand, does not reflect this pattern, and is low in all grades.

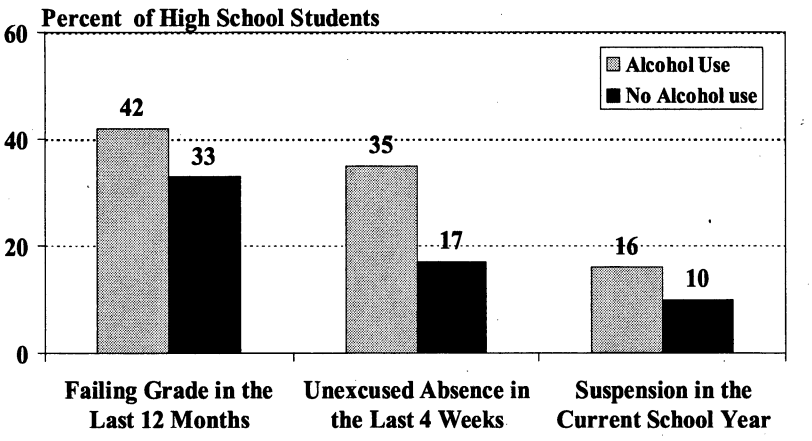
Binge drinking was also a serious concern. Binge drinking is defined as consuming five or more drinks in a row in the last 30 days. While 34% of boys and 26% of girls reported binge drinking, an examination of only those students who reported drinking in the last 30 days finds that 70% reported binge drinking at least once in the same period. Of the middle grade students in 1999 who reported drinking in the last 30 days, 30% reported binge drinking at least once in the same period.



The 2000 Teen Health Survey also provided information on substance use during the school day. Fifteen percent of students reported they had attended class within one hour of using alcohol, marijuana, or other drugs at least one time in the last 30 days. Not surprisingly, these students also reported higher school failure rates, more unexcused absences, and more school suspensions. While it is impossible to determine from the data whether the problems are causally related, it is clear that students who are having difficulties at school are at greater risk for substance abuse problems, and vice versa.

Current Alcohol Use* and School Problems

Cambridge High School Students: 2000

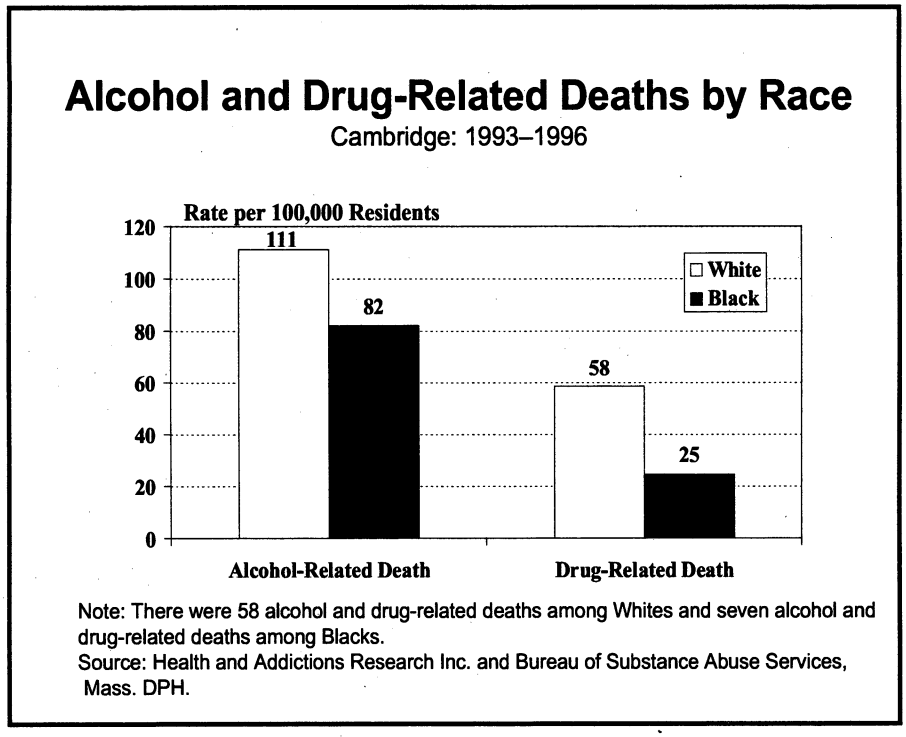


*Used during the last 30 days
Source: Cambridge Public Schools, Teen Health Survey 2000

ADULT SUBSTANCE USE

In Massachusetts, an estimated 19% of all deaths are related to tobacco use and 4% to alcohol and other drugs. Approximately 1,100 hospitalizations of Cambridge residents each year are for substance abuse-related illness. These hospitalizations are very costly and many admissions are not covered by insurance.

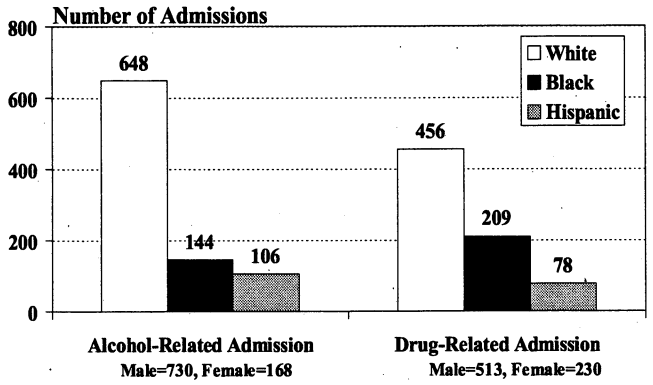
It should be noted that drug and alcohol admission data is available for publicly funded treatment programs only. Individuals with sufficient financial resources often choose treatment at private facilities. This may skew data such that people with limited resources are probably over-represented.



Rates of alcohol- and drug-related deaths in Cambridge were higher in Whites than in Blacks.

Alcohol and Drug-Related Admissions* by Race

Cambridge: 1998

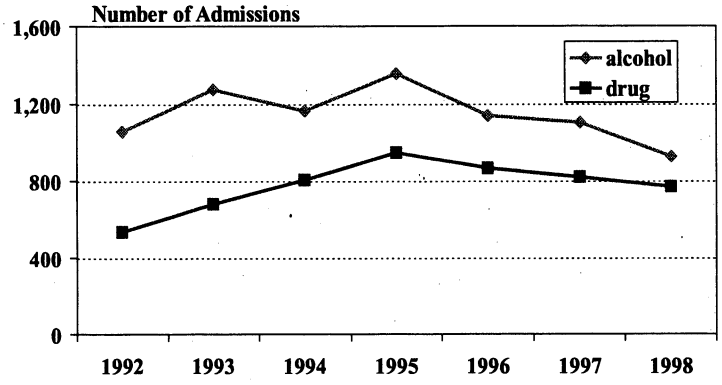


* Admissions to publicly funded treatment programs only, admission to private facilities is not reported
Source: Substance Abuse (BSAS), MassCHIP v2.5 r213.0, 12/13/2000, Mass. DPH.

Among Cambridge residents admitted to publicly funded programs for alcohol treatment, 72% were White, 16% Black, and 12% Hispanic. Admissions for drug treatment had a different racial composition: 61% White, 28% Black, and 10% Hispanic.

Trends in Alcohol and Drug-Related Admissions*

Cambridge: 1992–1998



* Admissions to publicly funded treatment programs only, admission to private facilities is not reported
Source: Substance Abuse (BSAS), MassCHIP v2.5 r213.0, 12/13/2000, Mass. DPH.

The number of alcohol-related admissions consistently exceeded drug-related admissions from 1992 to 1998 in Cambridge.

PROGRAMS

Prevention Programs

The Cambridge Prevention Coalition (a part of the Cambridge Department of Human Service Programs) facilitates agencies working together to tackle the difficult problems of substance abuse in our community. The Cambridge Prevention Coalition reflects the *Healthy People 2010* objective (26.23) to conduct substance abuse prevention efforts through partnerships or coalitions. It is a unifying force among the many community-based organizations and city departments that provide substance abuse prevention and treatment services.

School-Based Services

The *Cambridge Public Health Assessment 2000* chapter on substance abuse included a discussion about "science-based" prevention strategies. Science-based curricula and strategies are those that have been tested and proven to be effective in positively affecting youth behaviors. A science-based approach also allows for rigorous evaluation of new prevention strategies. Cambridge has made great strides toward incorporating this approach into efforts to prevent substance abuse.

The year 2000 brought significant changes to school-based prevention efforts in Cambridge. Following are brief summaries of those changes.

Health Coordinators and Health Specialists

The Cambridge Public Schools received a grant from the U.S. Department of Education for substance abuse and violence prevention services in the middle grades. Led by two middle grade health coordinators, this three-year effort is designed to increase coordination among school department personnel and community-based health education agencies.

Another related development during the 1999-2000 school year was an initiative to hire health specialists to teach 6th, 7th, and 8th grade health classes. In the past, Cambridge has relied on classroom teachers and health specialists from community-based agencies to teach health some health topics. This initiative will make it possible, in time, to create a coordinated health curriculum taught by trained health specialists within the School Department. This will also free classroom teachers to concentrate on other academic areas. The program will be expanded as funds become available.

Substance Abuse Prevention Curricula

The Cambridge Prevention Coalition piloted the Life Skills Training Program in 6th grade classrooms in four Cambridge elementary schools during the 1999-2000 school year. This program is an example of "science-based" prevention, and is cited as an effective tool for reducing substance use among youth. Life Skills Training is a three-year program designed to provide adolescents with the motivation and skills necessary to resist peer and media (e.g., television, advertising, movies, popular music) pressure to use drugs. It also provides them with

the skills needed to deal with the challenges of life as a teenager, including managing anger and emotions. Extensive studies conducted during the past 16 years have shown that students continue to show dramatic resistance to delinquent behaviors more than three years after they complete the program. The Life Skills curriculum has proven to be effective with White, African-American and Hispanic students.

CASPAR also implemented the science-based approach when it began a study of its own Student Assistance Program in four Cambridge elementary schools. The Student Assistance Program combines basic substance abuse prevention for all students with additional support services targeting high-risk youth. These services are also available to all interested students. It also includes training and support for faculty and staff, and coordination services for the development of school policies related to substance use and abuse.

The Cambridge Police Department has shown strong and consistent support for substance abuse prevention in the city. In consultation with the Cambridge Public Health Department, the School Department, Cambridge Prevention Coalition, and CASPAR, the police decided to discontinue offering the D.A.R.E. program. The Department is concentrating on providing school resource officers and supporting the two remaining substance abuse prevention programs.

Community-Based Substance Abuse Prevention Efforts

In order to reduce youth access to alcohol, the Cambridge Prevention Coalition and the Cambridge License Commission implemented a new strategy to address community norms and underage access to alcohol. The program, called the Server Intervention Project, consists of four components: a server training program for employees of establishments that serve or sell alcohol; policy development to support consistent enforcement of laws and policies; a media campaign to affect adult social norms regarding underage drinking; and evaluation of all activities to measure the effectiveness of the Server Intervention Project.

In 2000, the Cambridge Prevention Coalition developed and piloted a curriculum for training bartenders and wait staff who work in restaurants and bars that serve alcohol. (This curriculum will be adapted for use with package store employees.) Also in 2000, the Cambridge License Commission instituted regular "stings" of package stores and establishments that serve alcohol, in an effort to monitor and discourage underage service.

Another project addressed third-party sales. The Cambridge Licensee Advisory Board, Cambridge License Commission, and Mothers Against Drunk Driving (MADD) will implement a "Shoulder Tap Project." Using local youth trained by MADD, adults going into local package stores will be approached by adolescents who will ask the adults to purchase alcohol for them. Adults who refuse will be given a card explaining the project and praising them for their response. Adults who agree to buy will be given a card detailing the penalties for providing alcohol to a minor. The effectiveness of these strategies will be monitored so that adjustments and improvements can be made in a timely fashion.

Adult Treatment Programs

Substance abuse services at the Cambridge Health Alliance are provided under the auspices of the Mental Health and Addictions Division, in coordination with the departments of medicine, obstetrics/gynecology, and pediatrics. Substance abuse services are organized along traditional levels of care from detoxification and inpatient care to short-term residential and daily outpatient treatment, to supportive outpatient counseling. A 24-bed detoxification unit, located on the Somerville campus, facilitates connections with long-term care, primary health care, and continued outpatient treatment.

The Central Street facility houses a 15-bed, short-term residential program that provides intervention and early recovery support. The Outpatient Addiction Service and Dual Diagnosis Unit provide structured day treatment and counseling. The majority of outpatient clients have been referred from the inpatient detoxification program. Many of the clients are homeless or on the verge of homelessness, and require assistance in finding housing in safe, drug-free environments. The Cambridge Health Alliance collaborates closely with the CASPAR residential programs, providing psychopharmacological consultation and referrals. The Alliance has close working relationships with other community substance abuse organizations as well.

One *Healthy People 2010* objective for substance abuse is to increase the proportion of patients who are referred for follow-up care for alcohol problems, drug problems, or suicide attempts after diagnosis or treatment for one of these conditions in a hospital emergency department (26.22). The Alliance Psychiatric Emergency Department is a key referral site for the Cambridge Police Department. Intoxicated individuals picked up by Cambridge police are frequently brought to The Cambridge Hospital or Somerville Hospital where they are evaluated to determine the appropriate level of care. The close working relationship with CASPAR has facilitated referrals to the Emergency Service Center (the "wet" shelter at Albany Street).

The Department of Medicine has also taken a significant role in substance abuse treatment, especially early screening and intervention. Medical staff members are required to participate in training programs that focus on alcoholism and addiction, instilling a knowledge base and developing skills to intervene with their addicted patients. Dr. Henrietta Robin Barnes, who has provided much of this training, was recently awarded the Betty Ford Award for Lifetime Contribution to the field of addictions.

The Mount Auburn Hospital Prevention and Recovery Center, CASPAR, and Impact also provide outpatient substance abuse counseling. North Charles Institute for the Addictions runs a methadone maintenance program including a clinic operated in collaboration with The Cambridge Hospital. Population-based services are provided by the Geriatric Substance Abuse Program, the Teen Health Center (with CASPAR staff members), and the Massachusetts Alliance of Portuguese Speakers (MAPS), which offers acupuncture detoxification, as well as outpatient counseling.

AREAS OF NEED

- ***School-based Prevention.*** The school-based work is in an experimental phase, allowing for the investigation of three different approaches to substance abuse prevention. In the coming years, following adequate evaluation, it will be important to integrate these curricula so that substance abuse, AIDS, and violence are addressed in a clear and consistent manner. These curricula should be understood as an important component in the continuum of care for adolescents.

- ***Substance Abuse Treatment.*** Substance abuse outreach and treatment options should be expanded to meet the needs of adults and adolescents in the city. Two objectives of *Healthy People 2010* (26.18 and 26.21) address the need to reduce the treatment gap for illicit drugs and alcohol. Street youth (those who are homeless or close to homelessness) are particularly vulnerable and hard to reach. Cambridge Cares About AIDS opened a drop-in center in Harvard Square in late fall 2000. It is too soon to know whether the center will be effective in preventing substance abuse and other risk behaviors associated with this group of adolescents. However, the first positive sign is that more than 70 teens used the drop-in center services within several weeks of the opening.

  There is currently a statewide shortage of addiction specialists, particularly for patients who are struggling with the dual diagnosis of addiction and major mental illness. This pattern of dual diagnosis is particularly evident among homeless individuals but is progressively more recognized in outpatient psychiatric and medical practices as well.

- ***Young Adults.*** While Cambridge has extensive data on adolescent substance use, there is little information about substance use patterns and treatment needs of young adults between the ages of 18 and 24. In addition to efforts to address the three most commonly abused substances (alcohol, tobacco, and marijuana), there is a need to address the growing public concern about "club drugs" or "date rape" drugs. It is important to focus some attention on this population group and its drugs of choice.

CHAPTER 6: HEALTH PROMOTION AND DISEASE PREVENTION

INTRODUCTION

The history of public health begins with human attempts to control or prevent infectious diseases through environmental or behavioral interventions. Hand washing, safe food preparation, isolation of individuals with contagious diseases, access to sanitary water supplies, and human waste management can be seen as early public health campaigns.

During the past century, the public health domain has expanded beyond communicable disease to health conditions affected by factors other than infectious organisms, such as toxic chemicals and behaviors that increase risk factors for chronic or acute illness.

Effective disease prevention, more positively described as "health promotion," comprises the collaborative disciplines of medicine, education, public health, and politics.

Following are examples of ways in which the various disciplines complement each other's work:

- Physicians, nurses, and other health care providers play key roles in early detection and treatment of medical conditions and in patient education about risk factors and healthy behavior.
- Medical intervention to prevent or treat many chronic conditions, such as heart disease, respiratory disease, hypertension, and cancer, can lead to positive health outcomes and improved quality of life.
- Education about nutrition, physical activity, and other health habits goes hand-in-hand with treatment regimens for smoking cessation, weight loss, and other behavioral change programs.
- The development and enforcement of public health regulations is essential to disease prevention.
- Health awareness campaigns, often conducted jointly by medical providers, public health officials, and educators, have led to great improvements in health.

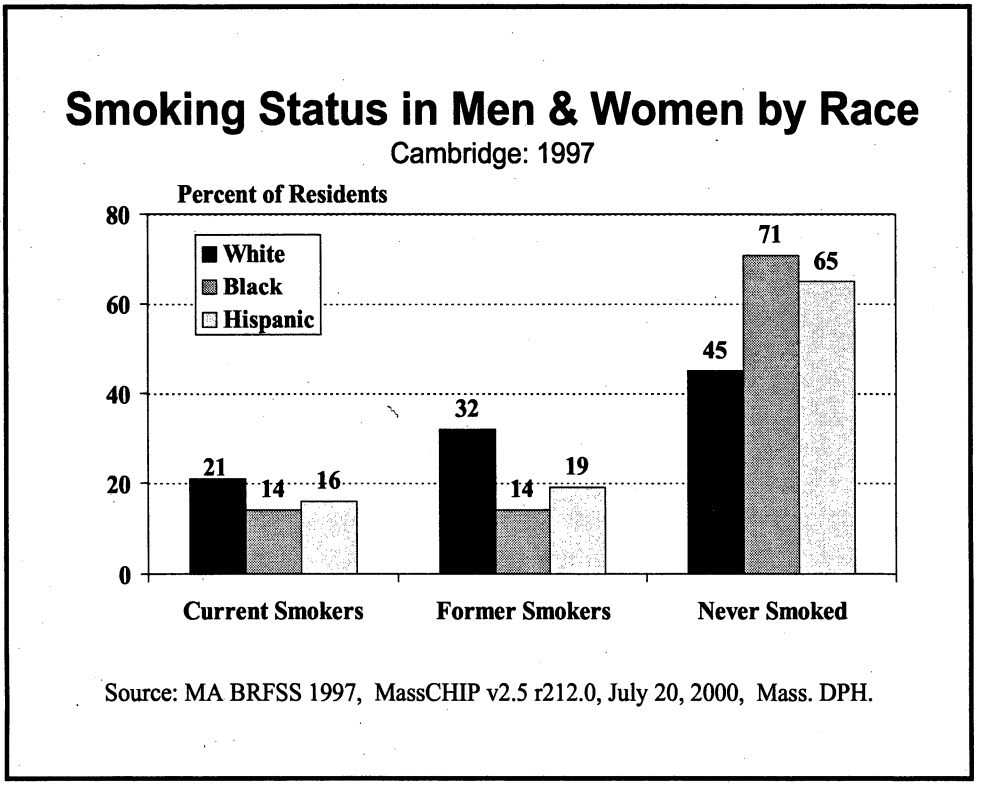
Health promotion can take many forms. Campaigns or single events may focus on a specific disease or health behavior. Or they may appeal to a specific population group regarding a range of health behaviors or risk factors. Whatever the approach, the goal is to achieve an improvement in measures of community health.

INDICATORS OF HEALTH PROMOTION and DISEASE PREVENTION

There are dozens of indicators identified in *Healthy People 2010* that are useful for evaluating the health of Cambridge. Some, such as deaths due to heart disease, examine health conditions that are preventable through the adoption of healthy lifestyles. Some, such as deaths due to prostate cancer, may focus on outcomes that are preventable through screening and early treatment. Others, such as tobacco or alcohol use, measure behaviors that may lead to health problems.

The next section includes data about preventable health conditions and outcomes. Throughout this chapter, relevant key indicators of health promotion and disease prevention will be identified and explained.

Throughout the country a major focus of public health organizations for the next 10 years will be on disparities of disease incidence and outcome by race, age, sex, and class. Following are data related to a few important indicators of health risk among Cambridge residents.

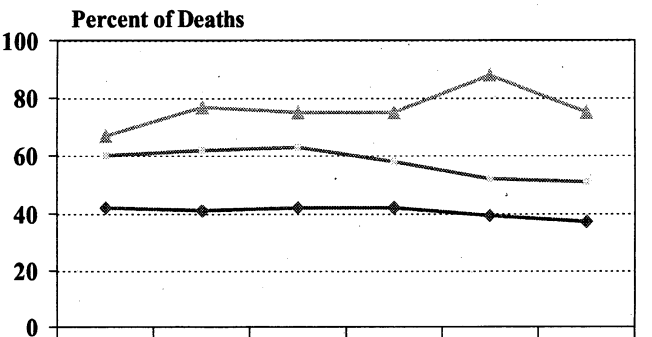


Source: MA BRFSS 1997, MassCHIP v2.5 r212.0, July 20, 2000, Mass. DPH.

In Cambridge, 21% of Whites were current smokers in 1997 but only 14% of Blacks and 16% of Hispanics. Whites were also more likely to be former smokers than either Blacks or Hispanics.

Deaths Before Age 75 by Race

Cambridge 1993–1998



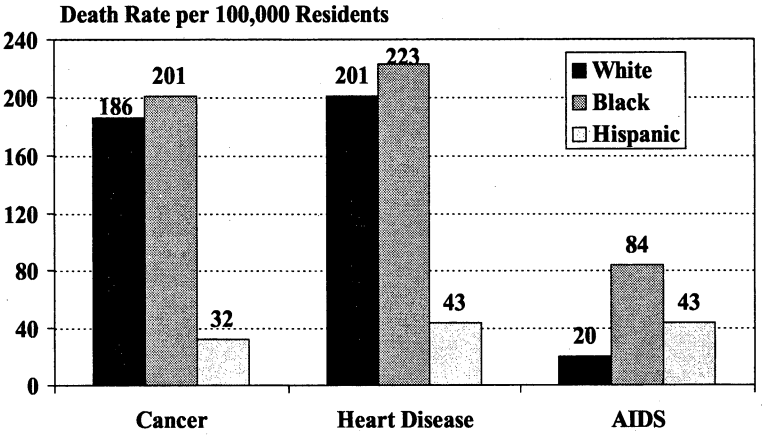
	1993	1994	1995	1996	1997	1998
White Male	42	41	42	42	39	37
Black Male	60	62	63	58	52	51
Hispanic Male	67	77	75	75	88	75

Source: Mortality, MassCHIP v2.5 r212.0, July 12, 2000

The percent of men dying early, before age 75, was consistently higher among Black and Hispanic men than among White men from 1993 to 1998.

Death Rates among Men by Disease

Cambridge: 1994–1998

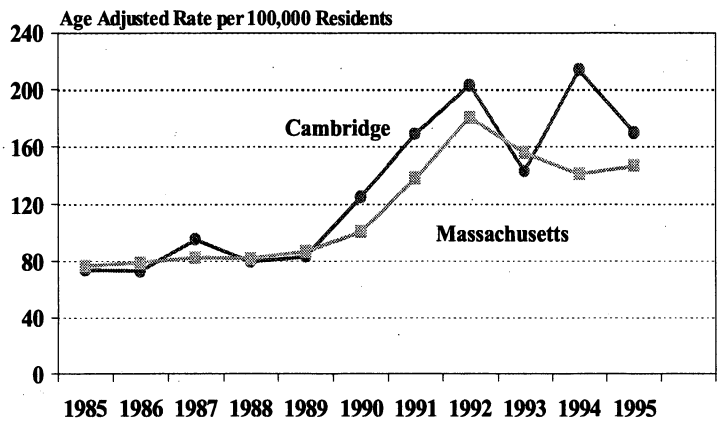


Source: Mortality, MassCHIP v2.5 r212.0, July 20, 2000, Mass. DPH.

Rates of death due to cancer, heart disease, and AIDS were higher among Black men than among White and Hispanic men from 1994 to 1998.

Incidence of Prostate Cancer

Cambridge and Massachusetts: 1985–1995

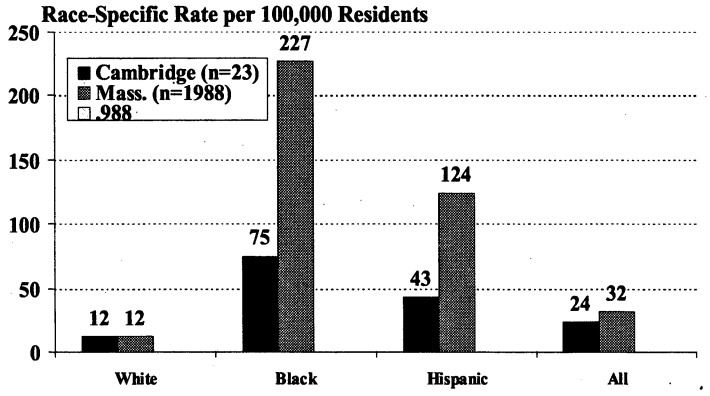


Source: Cancer Registry (1985-1995), MassCHIP v2.5 r213.0, July 20, 2000, Mass. DPH

The incidence of prostate cancer rose from 1989 to 1992 in Cambridge and statewide. This increase results in part from the initiation of prostate screening programs to detect early cancers.

Violence-Related Injuries by Race/Ethnicity

Injuries from Guns and Sharp Instruments
Cambridge and Massachusetts: 1994–1998



Note: Males account for 80% of all injuries in Cambridge and 84% in Massachusetts.
Rates are based on 97 MISER estimates
Source: Weapon-Related Injury Surveillance System, Mass. DPH

The rate of violence-related injuries was higher in Massachusetts than in Cambridge. In Cambridge, the rate among Blacks and Hispanics was higher than the rate among Whites.

PROGRAMS

The Cambridge Health Alliance measures well against the following *Healthy People 2010* objective:

> Increase the proportion of hospitals and managed care organizations that provide community disease prevention and health promotion activities that address the priority health needs identified by their community.

The Cambridge Health Alliance has a multitude of disease prevention and health promotion activities. The institution has long been recognized for its community benefits work. Over the past ten years and coinciding with the development of managed care (including the Alliance's own managed care product, Network Health), the Cambridge Health Alliance has strengthened its commitment to health promotion. This chapter describes current programs.

Some programs described in this chapter could have easily been included in Chapter 1: Access. School Health Nursing and Public Health Nursing, for instance, increase access to health care by providing health services in schools, homes, and community settings at no cost to consumers. These two programs are reported in this chapter, however, to maintain consistency with previous Cambridge Public Health Assessments. Other areas that are also related to access to health care are children's mental health (reported here in Health of the City), and men of color.

A. School Health Nursing

The School Health Program has evolved over the years from providing primary health care services to focusing more on school-based issues. In addition to providing first aid, medication administration, health education, and health counseling for students, school nurses are responsible for case management services, linkage between families and primary care, and advising school staff.

The Cambridge school nurses are assisted in their work by a staff of specially trained school health aides and a citywide hearing and vision technician. The school health staff works closely with community providers to ensure that medical treatment plans carry over from the home to the school setting. Staff members are committed to insuring that each child reach his or her own potential in the school setting.

Each month there are approximately 9,000 visits to the health offices for first aid, illness assessment, medical treatments, immunizations, counseling, and health education.

School Health Office Visits/All Schools: Grades K-12, November 2000

Students	First Aid	Illness Assessment	Medications	Procedures	Psych/Soc Counseling	Individual Health Counseling
Primary Issue	1409	2192	2491	589	245	871
Secondary Issue*	72	434		108	430	5
Staff	19	75	16	7		

* Secondary issues are those issues identified during the assessment of the presenting complaint that require additional assessment, evaluation, intervention, or referral. For example, a child presents with stomachache and during assessment, she also discloses that she'd had no breakfast and didn't sleep at home because her mother said they couldn't live there anymore.

In November 2000, School Health Nurses referred 16 students to emergency health services, 219 students were dismissed* from school due to illness, and 21 students were dismissed* from school due to injury. *(*Sent home, to emergency room, or to any off-school premises)*

School Health Office Medication Administration/All Schools: Grades K-12
Doses Administered in November 2000

Antibiotics	Asthma Meds	Epinephrine	Insulin	Psychotropic	Over-the-Counter	Other
31	235	0	25	1525	171	46

In spring 2000, the nurses worked with the school food service and administrative staff members to address the needs of children with food allergies. The plan, distributed to school principals in fall 2000, provided guidelines for teachers, parents, food service, and health staff. School nurses conducted training that prepared school personnel to recognize allergic reactions and to respond using Epi-pens when necessary. (An Epi-pen is a pre-filled automatic injector of a single dose of epinephrine, the first-line emergency medication for people experiencing life-threatening allergic reactions.) Data from 1999 indicate that at least one child in each building had a known allergic condition requiring the use of an Epi-pen for emergency response.

School Health Case Study

Many families come to the to the health office in need of guidance and support in accessing health care for their children. In one such situation, a child was found to be acutely behind in follow-up care and management for a chronic and potentially life threatening respiratory disability. The parents began to work closely with the school nurse to overcome the many internal obstacles that were preventing them from effectively managing their child's health care. Under the nurse's supervision, follow-up care soon resumed and the child's doctors developed a daily plan of care. The plan included daily lung assessments, twice weekly visits to the school health office to record weight, weekly reports to the pulmonary specialist, and regular updates to the mother. The family's goal was for their child to be healthy and well for graduation. Although the child was hospitalized prior to graduation, the post-op regimen coordinated by the school nurse allowed the child to graduate with her class in June.

Immunization

Immunization is one of the top ten goals of *Healthy People 2010*. Two indicators for this goal that are particularly relevant to the Cambridge School Health Program are:

- Vaccination coverage levels for children in kindergarten through the first grade.
- Proportion of adolescents who receive all vaccines that have been recommended for universal administration.

Two years ago, the School Health Program began a vigorous campaign to improve immunization rates among kindergarten students. In fall 2000, all but one of the kindergartners started the school year fully and appropriately immunized according to state law. (Thanks to a school health aide and her relationship to Alliance neighborhood health centers, the only underimmunized student was ready to start on the second day of classes.) This major accomplishment in kindergarten immunization was made possible through the collaboration and hard work of the Family Resource Center. Despite concerns of some parents and school committee members about the possibility of excluding children and inconveniencing families, this campaign was remarkably successful.

Each year the school nurses review the immunization records of all 6th grade students and inform families of vaccines that are required for 7th grade entry. In fall 2000, the school health staff worked closely with school administration to ensure that all 7th graders were fully immunized according to state regulations. By the end of October all 7th grade students had met this requirement.

Enhanced School Health Services

The School Health Program received a grant from the Massachusetts Department of Public Health for Enhanced School Health Services. This funding made possible the purchase of software to organize and maintain student health records. Work is now in progress to network all of the school health computers in order to begin using the new HealthOffice 2000 software.

The Enhanced School Health Services grant also provided funding to assist the development of baseline health services at private schools. A part-time nurse has been working with six non-public schools to conduct health needs assessments, to provide state mandated services (e.g., vision, hearing, postural screening), to develop tobacco and health education programs, and to link families and students to health insurance and primary care services.

The School Health Task Force, a working advisory group, provides an opportunity to engage community members in School Health Program planning. The task force is currently seeking parents of school-aged children as new members. The search for new members has been conducted through the school health newsletter, *Beyond Bandaids*, and through family liaisons. The task force plans to seek students' point of view through focus groups comprised of Cambridge students.

AREAS OF NEED

One *Healthy People 2010* objective is to increase the proportion of schools that have a minimum nurse-to-student ratio of one nurse per 750 students. Cambridge elementary and middle schools meet the objective, with one nurse per 460 to 695 students. However, at Cambridge Rindge and Latin School the ratio is below the objective, with one nurse per 1,010 students. We are fortunate to have grant funding to support a nurse presence in the non-public schools, but the funding is minimal and supports only one part-time nurse for six schools.

B. Public Health Nursing

The public health nurses in Cambridge have many years of experience and are deeply committed to their work. Public health nursing is focused on the traditional areas of communicable disease prevention and control; tuberculosis prevention, control and treatment; and maternal-child home visiting services. One of the most important programs coordinated by the nurses is the distribution of flu vaccine through public flu clinics. The nurses work with shelters, childcare centers, schools, and local businesses to provide health care support, education, and guidance for people who live and work in Cambridge.

INDICATORS FOR PUBLIC HEALTH NURSING

The mission of public health nursing is encapsulated in Goal 14 of *Healthy People 2010*: "Prevent disease, disability, and death from infectious diseases, including vaccine-preventable diseases."

Specific objectives that clearly pertain to public health nursing include:

- Increase the proportion of all tuberculosis patients who complete curative therapy within 12 months.
- Increase the proportion of contacts and other high-risk persons with latent tuberculosis infection who complete a course of treatment.
- Increase hepatitis B vaccine coverage among high-risk groups.
- Increase the proportion of adults who are vaccinated annually against influenza.

COMMUNICABLE DISEASE PREVENTION AND CONTROL

Public Health Nursing is responsible for identifying, monitoring, and responding to communicable disease in the city. Cambridge public health nurses reviewed over 350 cases of communicable diseases in 2000. They worked closely with area health care providers to make sure that the growing number of people diagnosed with hepatitis B and C were linked to primary care and treatment. Other diseases requiring the scrutiny of Public Health Nursing include enteric diseases (e.g. giardia, E. coli, salmonella, campylobacter), meningitis, hepatitis A in food service workers, and pertussis (whooping cough) for the purposes of assuring treatment, monitoring outbreaks, and preventing further spread of disease.

The management of communicable diseases is a complicated, time-intensive endeavor. It requires the undivided attention of public health nurses to contact patients and providers, provide education regarding the specific disease, and notify other individuals who may be at risk through

contact with an infectious person. The nurses must be skilled and sensitive when it comes to managing the emotions, fears, and questions of the affected individuals. These efforts are coordinated with epidemiologists at the Massachusetts Department of Public Health.

A recent outbreak of pertussis among students at Cambridge Rindge and Latin School called for such case management. Pertussis is endemic, peaking every two to five years. The nurses managing this particular outbreak provided intense outreach and education to Cambridge schools (elementary, secondary, and colleges), sports teams, worksites, primary care providers, faith communities, organized school and public activities, and families.

Hepatitis:

An exciting project of Public Health Nursing correlates with the *Healthy People 2010* objective regarding hepatitis B vaccine for high-risk groups. The public health nurses worked with Cambridge Health Alliance HIV Prevention and Services and the Somerville Health Department to provide hepatitis A and B vaccines to clients of North Charles Institute for the Addictions. Educational sessions at the drug treatment program were followed by vaccinations given to clients at the methadone clinic. Through this effort, 87 people received education and information about hepatitis A, B, and C, and 49 consented to receive hepatitis A and B vaccines.

On the day of the first hepatitis vaccine clinic, 32 people began the series of vaccinations. Twenty-four additional clients of the drug treatment program have expressed interest in receiving vaccines. The Public Health Nursing program has been working with North Charles Institute for the Addictions to develop an ongoing program to provide hepatitis vaccinations for these individuals and other clients.

Tuberculosis:

The Massachusetts Department of Public Health contracts with 25 hospitals throughout the state to provide care for persons with active tuberculosis and to those with latent tuberculosis infection.

In 2000, tuberculosis clinical services moved into the beautiful, new Ambulatory Care Center at The Cambridge Hospital. The new tuberculosis clinic is called the Schipellite Chest Center, named in honor of the many years of service and devotion of Mary Schipellite, RN. The program has continued to successfully treat patients with active and latent tuberculosis infection adding a new two-month medication protocol. Since January 2000, the program has seen 850 patients for evaluation and treatment for latent tuberculosis infection. It has provided care for nine patients with active tuberculosis.

Public health nurses visit each patient who is being treated for active tuberculosis infection two to seven days a week to observe the patient taking his or her medication. This is done to ensure that patients are able to complete all the required therapy and decrease the risk that infection will spread to other members of the community. Nursing case management requires taking into account each patient's individual situation and may include dealing with basic needs, housing,

food, transportation, and access to health care. The number of active tuberculosis cases in Cambridge has not changed significantly in the past seven years.

A Case Study

Public health nurses are often the first contact new immigrants have with the health care system. An individual recently emigrated from another country where she had been diagnosed with active tuberculosis. Her intention was to avoid tuberculosis treatment by coming to Cambridge. The Massachusetts Department of Public Health alerted the Cambridge department about the situation. Understanding the risk of infection to others, and with great sensitivity, the nurses worked tirelessly to find this person. The nurses met with the family to address concerns about the individual's immigration status as well as the family's concerns about their own health. The infected individual was finally persuaded to contact us, to come to the Schipellite Chest Center, and participate in treatment. As with all cases of active tuberculosis, the public health nurses visit patients to observe that the medication is taken. Because this person had a history of avoiding treatment, one of the nurses went to her home seven days a week for the first two months of treatment. As her health improved, she became more responsible for her medication and the visits were decreased to twice a week.

Flu Clinics:

In fall 2000 an unexpected shortage of flu vaccine created anxiety about the accessibility of vaccine for vulnerable populations in the city. The public health nurses delayed their annual schedule of public flu clinics from October until November. Additional delays in distribution of state-supplied vaccine made it imperative that the doses be carefully allocated so that the people at highest risk for severe complications or death from the flu would receive top priority. In contrast to previous years when flu vaccines were available to all flu clinic visitors, this year vaccines were initially given only to people with chronic medical conditions or to seniors over age 65. Thankfully, the full order of flu vaccine arrived in late November and restrictions on eligibility were lifted.

In response to the critical shortage of flu vaccine, the Public Health Department called on colleagues at the Cambridge Health Alliance, Harvard University, and MIT Health Services to supplement the supply of flu vaccine. The medical director of Harvard University Health Services responded with 500 doses of flu vaccine for use in the public flu clinics. The Cambridge Health Alliance donated 200 doses and MIT, an additional 50. The public health nurses vaccinated over 2000 people this year, as of the end of December 2000.

Other Public Health Nursing Work

The public health nurses have continued to provide health consultation and workshops to a variety of community agencies and have worked closely with other community providers to conduct screenings for blood sugar, cholesterol, and prostate cancer at health fairs in Cambridge. Elder housing units are frequently sites for talks and workshops.

The ability to communicate important health information in a timely, calm, and coordinated manner is a critical component of the work. In summer 2000 the public health nurses worked diligently to provide information and guidance to an anxious community concerned about West Nile Virus. The flu vaccine shortage a few months later marked another period of concern among the citizens of Cambridge. The pertussis outbreak in late November required communication and case management on a much smaller, more personal scale. Public Health Nursing, along with the rest of the Public Health Department, will be evaluating its processes and developing communication strategies for possible future public health emergencies.

C. Health of the City

Health of the City was founded in 1990 as one of the national Health of the Public sites through Rockefeller and Robert Wood Johnson grant funding. Now supported by the Cambridge Health Alliance, Health of the City is directed by Dr. David Bor, Chief of Medicine at the Cambridge Health Alliance. The program works closely with the Cambridge Public Health Department and various community agencies and city departments.

Health of the City is dedicated to improving the health of Cambridge residents through community-based health promotion and disease prevention activities. The program defines health broadly and brings a population perspective to its research through the use of community health data. The primary role of Health of the City has been research and development, which means the program initiates and facilitates program development and evaluation rather than administer initiatives. Successful Health of the City endeavors are the result of a decade of building trust among individuals and institutions, and a community-action approach. In the past decade, Health of the City has played a key role in advancing work in many fields, notably in domestic violence, pediatric dental health, immunization, elder falls prevention, and responsible sexual behavior.

Health of the City engages Harvard University and other academic health centers in its work. Faculty and students often help assess the scope of an issue and develop programs. This collaboration broadens the academic capacity of Health of the City and enriches the educational experience of graduate students.

This section reviews the activities of the task forces, community agencies, and individuals affiliated with Health of the City during the past school year.

PROGRAMS

The Health Information Unit:
The Health Information Unit compiles data on Cambridge and Somerville from the Massachusetts Department of Public Health and numerous other sources to provide quantitative information about priority health areas and traditional public health concerns.

This information guides program development and evaluation, and is an important educational tool. The data is published in the Cambridge and Somerville Public Health Assessments and *Cambridge at a Glance*, a one-page overview of health facts and figures that measures our progress toward achieving the national health goals. In January 2000, the Cambridge Health Alliance mailed *Cambridge at a Glance* to all Cambridge households to inform residents about health status indicators and raise awareness about the work of the public health department and the Alliance.

Community-based learning opportunities and education:

Cambridge Public Schools
Health of the City and the social studies department at Cambridge Rindge and Latin School received a grant from the Association for Supervision and Curriculum Development to redesign the school's popular elective course in public health.

Harvard School of Public Health Family and Community Health class
During the 2000 spring semester, Health of the City precepted two teams of Harvard students completing field work requirements for their Master of Public Health degree.

The first team surveyed after-school daycare, enrichment, and athletic programs regarding their snacking practices. The group also developed a self-assessment tool for after-school programs and an information packet on childhood nutrition, menu planning, and government reimbursement policies for after-school snacks. The team presented their work orally in May 2000. The self-assessment tool is currently being prepared for distribution to after-school programs.

The second team surveyed food pantry clients to better understand barriers to food stamp use. The group learned that food stamps were often "not worth the hassle" because the food allocation was not enough to meet clients' needs, the forms were difficult to understand, and staff were often rude or unhelpful. The group presented their findings in May 2000.

Harvard Medical School First Year Urban Neighborhood Campaign
Health of the City hosts groups of incoming medical students for community service projects. In 1999, students interviewed elders about health and health services. In 2000, the focus was on men's health, particularly on how men of color access health care.

Other Academic Collaborations
A graduate student from Boston University reviewed the literature and public policy on lactose intolerance and developed recommendations for Cambridge Public Schools in the document *Addressing Lactose Intolerance in Cambridge Public Schools.*

A doctoral student from Tufts School of Nutrition assessed the protective factors associated with positive or healthy behaviors among teens using data from the 1998 Teen Health Survey in *Personal and Social-environmental Factors Associated with Positive Lifestyles Among Adolescents.*

The Healthy Children Task Force

Health of the City convenes the Healthy Children Task Force to bring together members of the Cambridge community to discuss health issues for children and to create innovative strategies to address them. The Healthy Children Task Force monitors progress in health priority areas and provides input on children's health initiatives.

The Healthy Children Task Force, now nearly a decade old, meets monthly and includes representatives from health care, public health, academic institutions, human services, the school department, and other community groups. The primary focus for the past couple of years has been on physical activity promotion, obesity prevention, mental health, and asthma prevention and treatment. Two subcommittees meet regularly to work more in-depth on these .

Obesity Prevention and Physical Activity Promotion

The past twenty years have seen a dramatic increase in obesity and a significant decrease in physical activity among Americans. Nationally, about 33% of adults are overweight and another 23% are obese. About 15% to 20% of children and adolescents are overweight and another 10% are obese.

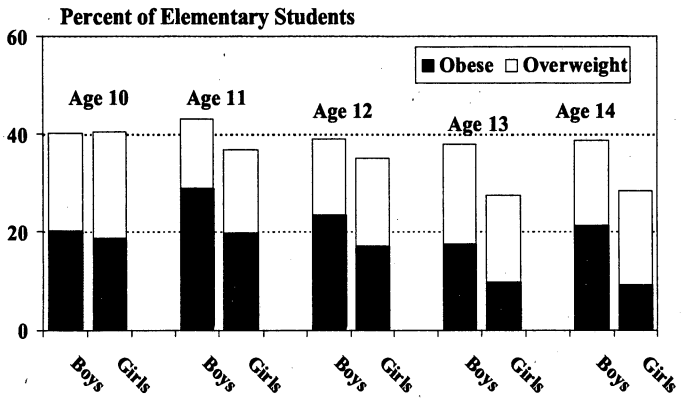
Healthy People 2010 objectives in Physical Activity, Fitness, Nutrition, and Overweight

- Promote health and reduce chronic disease associated with diet and weight
- Reduce the proportion of children and adolescents who are overweight or obese
- Improve health, fitness, and quality of life through daily physical activity.
- Increase the proportion of adolescents who engage in moderate physical activity for at least 30 minutes on five or more of the previous seven days.
- Perform Vigorous physical activity, three or more days/week, 20 minutes/occasion for adolescents
- Meet daily physical education requirement in schools
- Increase the proportion of children and adolescents who view television less than two hours per day.

Here in Cambridge, about 40% of the public school students, aged 10-14, are overweight or obese every year about half of the students fail the physical activity assessments conducted in the schools.

Overweight and Obese Children by Age & Sex

Cambridge Elementary Schools: 1999



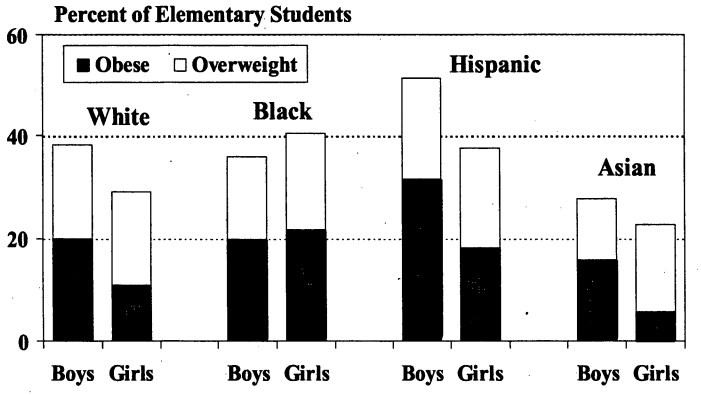
Note: Obese children are above the 95th percentile; overweight children are between the 85th and 95th percentile for BMI per National Center for Health Statistics standards.

Source: Robert McGowan, Physical Education Dept., Cambridge Public Schools

About 40% of Cambridge boys and girls aged 10 years are overweight or obese. While rates of obesity are similar for boys and girls at age 10, at ages 11,12, and 13 rates if obesity are higher in boys than girls.

Overweight and Obese Children by Race & Sex

Cambridge Elementary Schools: 1999



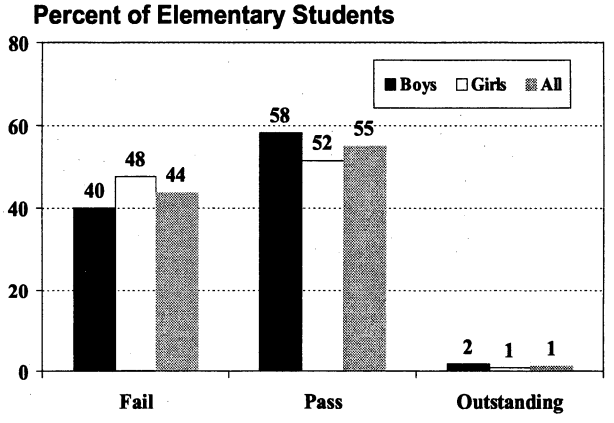
Note: Obese children are above the 95th percentile; overweight children are between the 85th and 95th percentile for BMI per National Center for Health Statistics standards.

Source: Robert McGowan, Physical Education Dept., Cambridge Public Schools

Among Cambridge school children ages 10 to 14, the highest rates of overweight and obesity present in Hispanic boys (51%) and the lowest rates of overweight and obesity occur in Asian girls (23%).

Fitness Testing* by Sex

Cambridge Elementary Schools: 1999



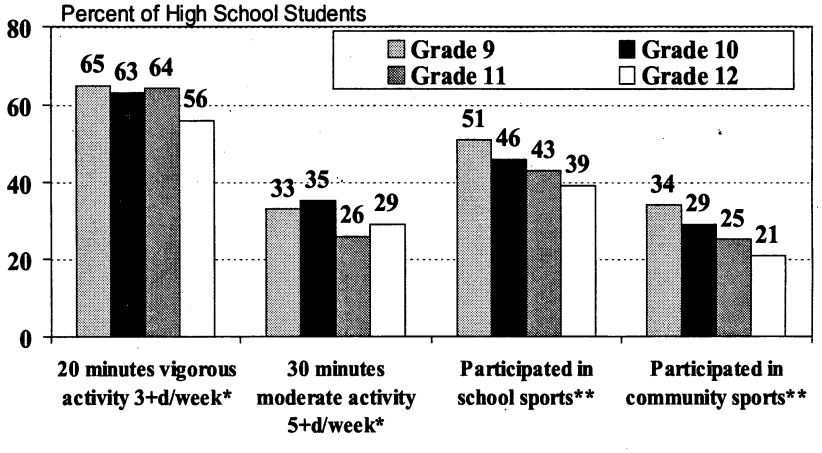
* Fitness was measured by five required tests: endurance run and endurance shuttle run for cardiovascular fitness; curl-ups for abdominal strength, back saver sit-and-reach for flexibility; modified pull-ups and flexed arm hang for upper body strength.

Source: Robert McGowan, Physical Education Dept., Cambridge Public Schools

Since 1997, the Healthy Children Task Force has adopted the promotion of physical activity and healthy eating as a priority.

Physical Activity of High School Students by Grade

Cambridge High School Students: 2000

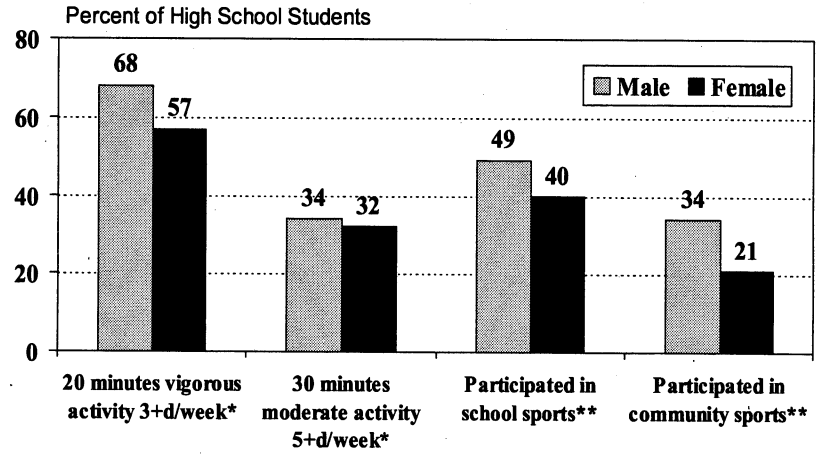


* during the last seven days ** during the last 12 months

Source: Cambridge Public Schools, Teen Health Survey 2000

Physical Activity of High School Students by Sex

Cambridge High School Students: 2000



* during the last seven days ** during the last 12 months
Source: Cambridge Public Schools, Teen Health Survey 2000

Collaboration with the Cambridge Public Schools Physical Education and Athletics Department led to the implementation of an obesity and physical fitness surveillance system in the public schools. Physical Education teachers collected and computerized height, weight, and fitness data and the Health Information Unit analyzed and charted the material. The information was presented at the annual conference for the American Public Health Association in November 2000.

During the course of the year, the group received a breakfast promotion grant for the School Food Service Department. The group was also instrumental in developing and implementing the "Walk Your Child To School Day" in October 2000.

Another important accomplishment in 2000 involved developing and distributing materials to promote physical activity.

- *Cambridge Moves: A Directory of Physical Activities for Cambridge Youth,* an inventory of sports and activities available in Cambridge, was produced in four languages and distributed to every public school child, Cambridge Health Alliance primary care sites, and Cambridge public libraries.
- *Directory of Clinical Services for Overweight Children and Adolescents in the Greater Boston Area* an inventory of medical and other programs designed for overweight children and adolescents, was distributed to 200 Greater Boston area pediatricians and clinicians.

Members of the subcommittee conducted workshops for public school teachers on obesity and sensitivity to overweight children during spring 2000 and conducted a pediatric grand rounds on obesity for Cambridge Health Alliance and Mount Auburn pediatricians.

Child And Adolescent Mental Health

For the past couple of years, the Healthy Children Task Force has identified child and adolescent mental health as a priority for collaborative action. This determination was based on community recognition of both national and local reports that the prevalence and severity of mental health issues have increased while the service capacity of our city to meet this demand has remained static. For example, over 100 teens at the high school reported attempting suicide in the past year.

In response, a mental health study group was convened and charged with documenting the extent and nature of mental health problems affecting Cambridge children, mapping the resources and services available in the city, and developing innovative strategies to meet the challenge. This study group includes representatives from the Cambridge Health Alliance, Cambridge Public Health Department, Cambridge Public Schools, Cambridge Youth Guidance Center, and the Family Center.

The group is engaged in several approaches to assess needs and map the mental health resources available to children and adolescents, particularly of public school students. In 1999, Harvard graduate students provided information on the level of need from health providers and school staff. An inventory of school-based services available in elementary school children was distributed to all principals and school administration for reference and planning purposes. This summer, the Health Information Unit produced a report, *Mental Health and Children: A Health of the City Informational Report,* a summary of national and local health information on the mental health status of children and adolescents in Cambridge.

The Healthy Children Task Force mental health study group is active in developing citywide and school-based models for promoting mental health – from prevention to treatment – and in developing collaborations to increase the city's capacity to deal with this issue. For instance, the group is working with Harvard faculty from the Provost's office, the School of Public Health, and the Harvard Center for Children's Health to harness faculty expertise and resources.

D. Tobacco Education and Control

Tobacco use, particularly cigarette smoking, is the single most preventable cause of disease and death in this country. Reducing illness and death related to tobacco use and secondhand smoke requires a cultural change and the complementary approaches of the medical and public health communities. A multipronged approach must include policy development and enforcement, education, cessation counseling, and access to nicotine replacement therapy. The Cambridge Health Alliance, in partnership with the Five City Tobacco Control Program, provides all of these services with funding from the Massachusetts Department of Public Health.

The Cambridge Public Health Department continues its partnership with the Five City Tobacco Control Collaborative (other members include Somerville, Medford, Chelsea, and Everett). The goal is to change social norms regarding tobacco use in Cambridge. The Tobacco Control Program is funded primarily to enact and enforce tobacco control policies. These policies fall into two main areas: preventing youth from gaining access to tobacco products and protecting the public from exposure to secondhand smoke. Cambridge has been a member of the Five City Collaborative since October 1997.

As reported in the 2000 edition of the Cambridge Public Health Assessment, the Cambridge Tobacco Control Ordinance was amended by the City Council in June 1999. The amendments strengthened tobacco control regulations to further limit youth access to tobacco products and to prohibit smoking in most restaurants. Under certain circumstances, and by permission of the Cambridge Public Health Department, only those restaurants with bars may have smoking sections. The amended ordinance went into effect on January 2, 2000. Much of the tobacco control work during this year has focused on helping retailers and restaurateurs comply with the regulations.

INDICATORS

Healthy People 2010 objectives related to tobacco control include:

- Reduce the proportion of nonsmokers exposed to environmental tobacco smoke.
- Increase smoke-free and tobacco-free environments in schools, including all school facilities, property, vehicles, and school events.
- Establish laws on smoke-free indoor air that prohibit smoking or limit it to separately ventilated areas in public places and worksites.
- Reduce the illegal sales rate to minors through enforcement of laws that prohibit such sales.

Tobacco Control Programs and Services

Tobacco Retailers

One of the primary functions of tobacco control is to provide outreach and education to tobacco retailers. In Cambridge, all retailers are visited by a tobacco enforcement officer and offered on-site training in community retailer responsibility for their managers and employees. Retailers also receive monthly mailings from the Five City Tobacco Control Program. Educational materials are available in English, Spanish, Portuguese, Haitian-Creole, Arabic, Punjabi, Vietnamese, Khmer, French, and Bosnian. The education component is designed to ensure that retailers understand and abide by local, state, and federal regulations governing the sale of tobacco to minors.

Compliance checks continue to be the most effective way to gauge retailer observance of the Cambridge Tobacco Ordinance. Compliance checks are also useful as educational opportunities to reinforce the importance of restricting minors' access to tobacco products. In summer 2000, the Tobacco Control Program increased compliance checks for all retailers from a biannual to quarterly schedule. There were 508 compliance checks conducted in the year 2000. During these compliance checks, 40 sales to minors occurred, a rate of sale of 8%. This indicates a downward trend, from 9% in 1999 and 16% in 1998.

The decline in sales may be indicative of stronger tobacco ordinance enforcement. In fall 2000, one retailer received a two-week suspension of his permit to sell tobacco products following multiple sales to minors within a year. Cooperative agreements between the Public Health Department, Inspectional Services, and the License Commission allow for this level of enforcement.

Restaurants

January 2, 2000 marked the implementation of the revised ordinance affecting smoking in restaurants. By the time of implementation, 83 permits to allow smoking were granted. To ensure restaurateurs understand and comply with the ordinance, the Tobacco Control Program continues to mail educational materials to restaurants and to make on-site educational visits. Cambridge can be proud that 80% of its restaurants are smoke-free.

As the positive economic and social benefits of smoke-free environments have become more evident, some restaurants are voluntarily opting to ban smoking in their establishments. Since the Cambridge Tobacco Ordinance prohibits the issuance of permits to allow smoking in restaurants after January 1, 2000, Cambridge will continue to see a greater percentage of its restaurants become smoke-free. The Tobacco Control Program is currently working with the American Cancer Society to develop a task force of restaurant workers who are interested in the issue of environmental tobacco smoke.

Community Awareness

In addition to its policy-making and enforcement efforts, the Tobacco Control Program has worked diligently in the community to educate people and raise awareness about tobacco issues. Increased funding from the Master Settlement Agreement has allowed the program to expand into new outreach areas. New initiatives have included movie theater public service announcements targeted at restaurant patrons and youth; taxicab advertisements about secondhand smoke; and MBTA bus advertisements about environmental tobacco smoke.

A major initiative of the program has been to implement a survey of adults and youth regarding social sources of tobacco. "Social sources" refers to how minors gain access to tobacco from places other than retailers (e.g., older friends, family members). The survey will be expanded in 2001 and the results will be used to develop a media outreach plan. In 2000, the program also began to work with area youth groups on the issue of storefront advertising of tobacco, a project that will continue into 2001.

Tobacco Outreach, Education, and Cessation

During 2000, the Cambridge Health Alliance provided tobacco education, tobacco cessation counseling, and nicotine replacement therapy. Cessation counseling was provided for Spanish speakers in Cambridge and for English, Portuguese, and Cape Verdean Creole speakers on the Somerville campus. A tobacco cessation group was also offered for adolescents at the Teen Health Center.

Community-based health fairs and events throughout the year 2000 combined anti-tobacco messages with information about the harmful effects of tobacco and the availability of cessation programs in multiple languages. Several Cambridge worksites hosted health fairs as well.

Tobacco education is integrated into health education classes in the Cambridge Public Schools. Outreach education has also occurred in several elementary schools in small groups and in the context of large campaigns like World-No-Tobacco Day.

Tobacco education also occurred on a more intimate scale through visits to Spanish and Portuguese-speaking neighborhood stores, and during home visits by Newborn Home Visiting and Healthy Homes.

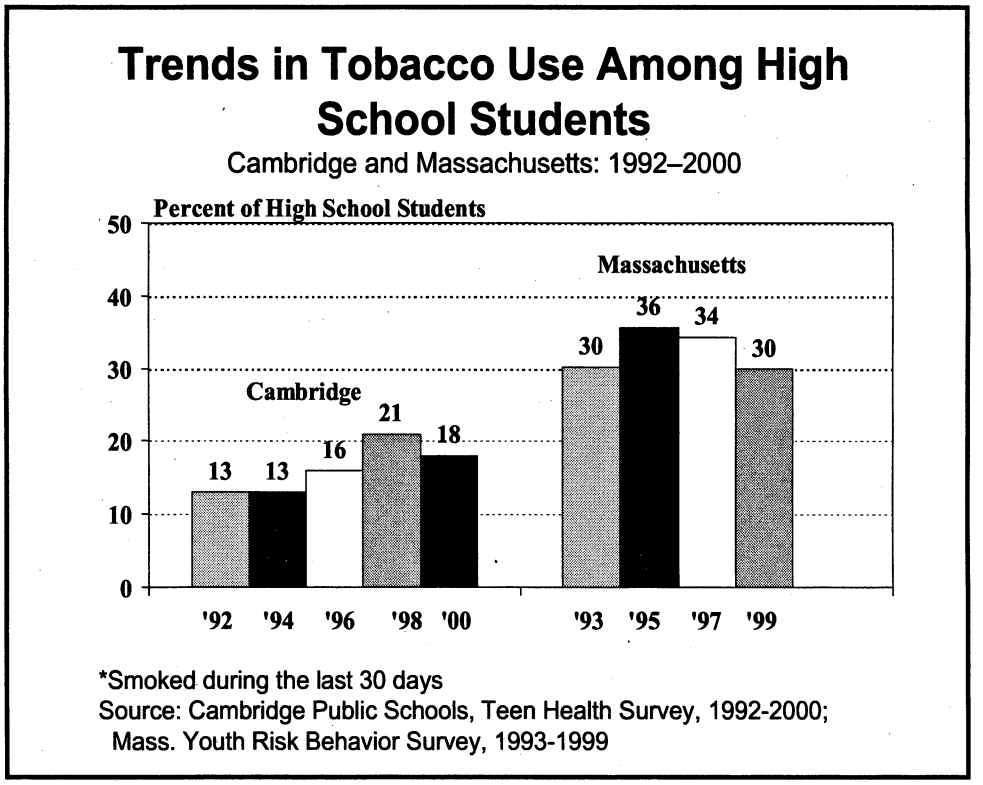
Unfortunately, the Cambridge Public Health Department's tobacco outreach and education program was not refunded for FY2001. Tobacco cessation is still provided in Somerville, and about 30% of the clients in the Somerville program are Cambridge residents. Cambridge students will continue to receive tobacco education in their health classes.

Adolescent Tobacco Use

The ultimate goal of tobacco control and education programs is to prevent tobacco use in the first place. Since most smokers begin their tobacco use during adolescence and early adulthood, it is essential to direct health promotion to the youngest members of our community.

In 1997, 43% of adolescents nationwide were current smokers and 24% of adults were current smokers. *Healthy People 2010* has set as an objective to reduce tobacco use by adolescents to 21%.

How are we doing in Cambridge? We are fortunate to have access to data on adolescent tobacco use from the high school and middle grades student health surveys.



Tobacco use among Cambridge high school students increased from 13% in 1992 to 21% in 1998 and then decreased to 18% in 2000. Tobacco use among Cambridge adolescents remains lower than among adolescents in Massachusetts.

AREAS OF NEED

With reduced funding for tobacco education and outreach, efforts will be limited compared to previous years. It is possible that tobacco ordinance enforcement could help keep adolescent tobacco use at bay.

Tobacco cessation counseling, although available through the Cambridge Health Alliance, is not easily accessible for some Cambridge residents. Due to limited funding, counseling is offered in English, Portuguese, and Cape Verdean Creole, but not Spanish or Haitian Creole.

E. Health Promotion Events and Campaigns

Led by the Cambridge Public Health Department and the Community Affairs Division, the Alliance initiates and participates in many kinds of health promotion activities.

Public events and festivals offer invaluable opportunities to work with community partners and connect with the public. Through the Alliance's visible role in such events, participants and passers-by often get exposure to health information while enjoying a cultural festival such as Central Square World's Fair, Cambridge International Carnival, the River Festival, and Brazilian Independence Festival.

There are many opportunities to bring health information to residents and workers in community settings. Alliance health educators have played significant roles in developing health fairs at local factories (e.g., Cambridge Brand, Necco, Ames Envelope) and in churches (e.g., St. Mary, St. Anthony, St. Paul).

The Cambridge Health Alliance also co-sponsors a number of annual health promotion events. These include Women's Health Day, Hoops 'n' Health, Haitian Health Festival, Senior Health and Wellness Day, and various open houses at Alliance sites.

However, we believe there is limited value to health promotion or education offered through isolated events. For this reason, most Cambridge Health Alliance activities are provided within the context of ongoing health promotion campaigns.

The following health promotion activities and campaigns were organized by the Alliance in 2000.

Cambridge Walks

Healthy People 2010, has identified increased walking as a key objective under the goal of increasing physical activity. Walking is among the most accessible and safe forms of exercise for children and adults. "Walk Your Child to School Day" began in 1999 as a single health promotion event and has since grown into an ongoing health promotion campaign. The campaign, *Cambridge Walks*, is an opportunity for Cambridge to promote itself as a walking city—a place where walking is safe and where the health benefits of this activity are recognized and publicized.

In October 2000, Cambridge celebrated the second annual "Walk Your Child to School Day. The Cambridge Public Health Department organized this citywide effort support the 3,000 Cambridge school children who walk to school or to bus stops each day. The event incorporated celebration and learning in an effort to raise public awareness about pedestrian safety and about walking as a healthy behavior. Partners involved in Walk Your Child to School Day included volunteers from the community, teachers (who gave assignments related to the walking theme),

the Cambridge Family Literacy Collaborative, the Cambridge Public Library, and the Family Resource Center.

The Cambridge Walks working committee is identifying existing opportunities and developing new initiatives for walking promotion. Members include representatives from various city departments, community-based organizations, private businesses, the City Council, and the School Committee.

Health & Wellness Program

In winter 2000, the Cambridge Health Alliance launched the Health & Wellness Program to promote the well-being of the culturally diverse community it serves. By providing affordable health and fitness programs, the program also introduced residents of Cambridge, Somerville, and surrounding communities to the array of quality health care services offered by the Cambridge Health Alliance.

The Health and Wellness Program has three components: a newsletter, health and fitness classes, and a 5K run/walk. The newsletter, *Alive & Well,* debuted in March 2000. Over 50,000 copies were mailed to residents of Cambridge, Somerville, Medford, Malden, and Arlington. The newsletter featured health tips, articles on nutrition and fitness, and a calendar of health education courses and lectures.

Health and fitness classes, such as yoga, weight management, and tobacco cessation, were offered in Cambridge and Somerville. More than 250 people from seven cities participated in the classes and had the opportunity to learn about the Cambridge Health Alliance. It is worth noting, however, that turnout from non-English speaking residents was low. Program planners are working to develop identify additional outreach strategies, including developing courses that will appeal to immigrants and other non-English speakers.

A health fair and a 5K Fun Run in May 2000 officially launched the Health and Wellness Program. The five-kilometer course linked The Cambridge Hospital and Somerville Hospital. After the race, three hundred runners and walkers and a host of spectators enjoyed live entertainment, health screenings, free massages, and refreshments.

Health Promotion in Specific Communities

Health disparities among racial and ethnic groups in the United States remain a significant public health concern. In August 1998, the Department of Health and Human Services began an initiative to address racial disparities in health. The initiative focused primarily on the health needs of women and children. There is overwhelming evidence on several health indices that men of color also experience disproportionately higher rates of morbidity and mortality. (See pages 83-84).

Healthy People 2010 is designed to address health disparities by race, ethnicity, sex, age, sexual orientation, and geography. Specifically regarding health promotion, *Healthy People 2010* states that health promotion programs need to be sensitive to the diverse cultural norms and beliefs of the people for whom the programs are intended.

The Cambridge Health Alliance has long been committed to this objective. The Cambridge Public Health Department and the Community Affairs Division work closely with many representative groups in program planning. In the "Access to Health Care" chapter, we described some of our health programs designed to serve the diverse communities of Cambridge. The Alliance employs multilingual, multicultural health educators to provide health education in the areas of HIV/AIDS, breast health, tobacco, lead, asthma, and men's health. The Alliance has also established programs to deliver specific health promotion messages to vulnerable population groups. Descriptions of some of these programs follow:

Men of Color Health Program

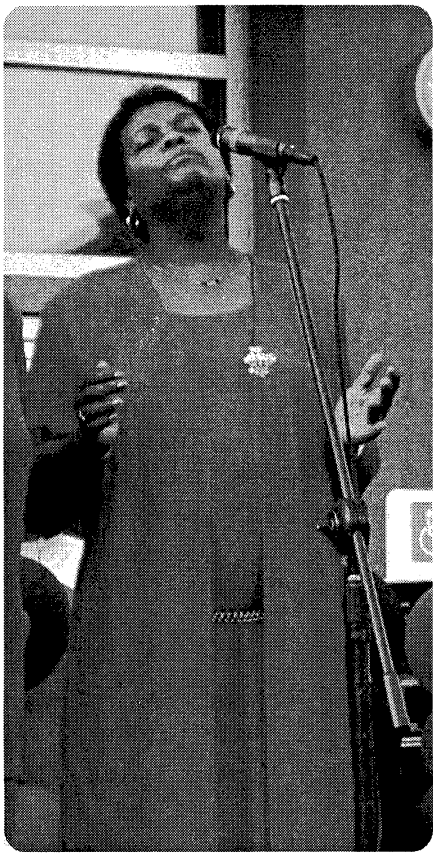
The Men of Color Health Program was established by Health of the City to improve the health of minority men in Cambridge. The primary goals of the program were to enroll men of color in primary health care, to educate men of color regarding risk factors, and to facilitate behavioral change that will minimize health risks.

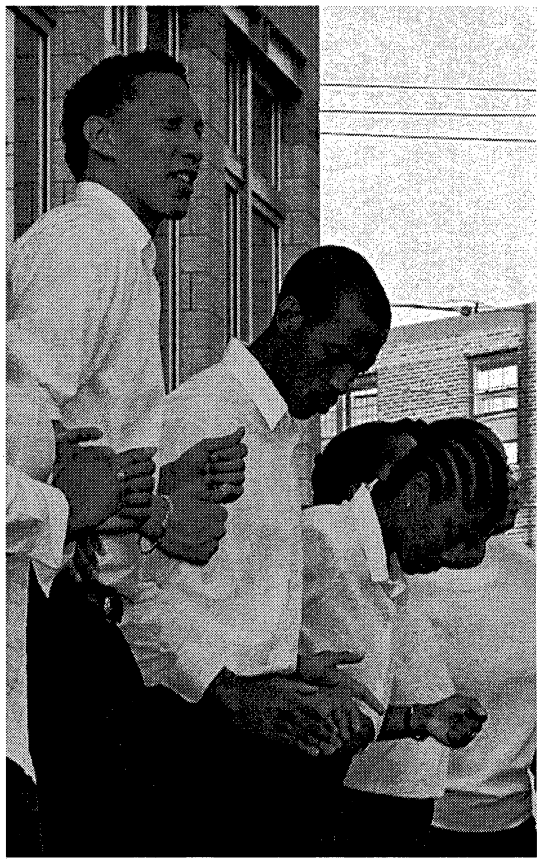
The first goal, to enroll men of color in primary health care, was the main focus of the Men of Color Health Program during its first two years. In the past few years, however, the focus has shifted to health promotion and education regarding health risks. Outreach and health education are provided in community settings such as barbershops, social clubs, churches, community centers, and health clinics.

A secondary goal of the Men of Color Health Program is to improve the cultural competency of the Cambridge Health Alliance and its providers so that the institution will be more welcoming to men of color. Since 1995, the Cambridge Health Alliance has made great strides in hiring a diverse medical and administrative staff and in improving cultural competency throughout the institution. The health issues of men of color are addressed on an ongoing basis through focus groups, workshops, and medical grand rounds. Men of Color Program events and initiatives in 2000 included Gospel Health Fest, Hoops 'n' Health, and the Prostate Cancer Initiative.

Gospel Health Fest

In June 2000, the Cambridge Health Alliance sponsored its first Gospel Health Fest, an exciting and innovative approach to outreach and health education. The event was based on recognition of the significance of the Church in African American communities and built on the strong relationships between the Alliance and church leaders.



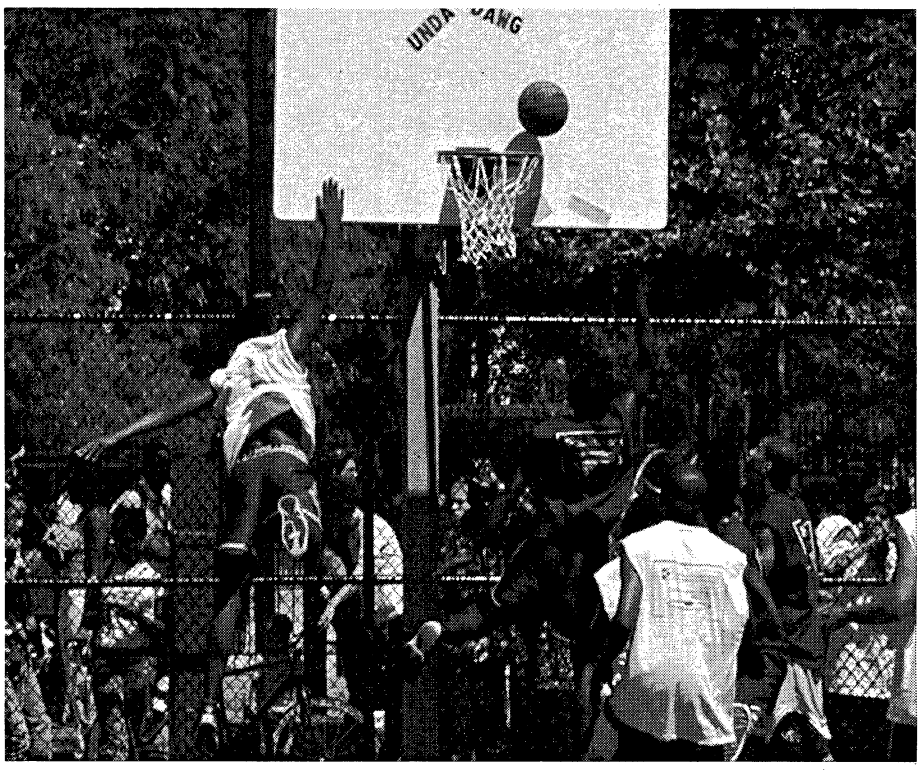


Many members of the community came together to plan this special event. The planning committee included community activists; church members and choir leaders; physicians; and nurses. Co-sponsors were the Black HIV/AIDS Coalition, the NAACP, and the Cambridge Black Pastors Conference. The Gospel Health Fest delivered strong, positive, and enduring messages about spirituality, African-American health issues, and the availability of affordable health care to residents of Cambridge.
The Gospel Health Fest took place at the Windsor Community Health Center. Performances by Cambridge church and school choirs were interspersed with inspirational health messages, children's activities, story telling, raffles, and a lot of good food. Visitors had the opportunity to meet individual providers and to participate in screenings for diabetes, blood pressure, and cholesterol.

Gospel Health Fest was so successful the Alliance plans to repeat the event in fall 2001.

Hoops 'n' Health

Hoops 'n' Health is an annual health fair and basketball tournament targeted at young African American men and their families. Hoops 'n' Health is held at Hoyt Field near the Riverside Health Center and typically draws several hundred people. The June 2000 event included the first annual women's basketball tournament and was attended by over 700 people.



Hoops 'n' Health is a wonderful community builder. It is an opportunity for the Health Alliance, the Youth Centers, the Police, Public Works and the communities of Cambridge to come

together and enjoy an exciting sporting event, while promoting healthy behaviors for everyone. Each player must participate in health education workshops and a health risk assessment. The health fair complements the basketball tournament by providing attendees with information about health and social services available throughout the city.

Prostate Cancer Initiative

Building on the two-year prostate cancer screening program, a collaborative effort of the Cambridge Public Health Department and local churches, the Alliance co-sponsored a large-scale educational and screening activity in January 2000. St. Paul A.M.E Church hosted the event, in partnership with the Massachusetts Department of Public Health and the Mount Auburn Prevention Center. Approximately 200 people participated in the activity.

Women's Health Promotion

Enhancing women's health services is one of the two highest priorities of the Cambridge Health Alliance.

During 2001, the Alliance plans to create a multidisciplinary women's health program manifested by a coordinated and standardized system of care throughout the 20 primary care sites, and two core hospitals.

Standards of care will be developed using national benchmarks including *Healthy People 2010* indicators and screening guidelines published by the American Cancer Society, American College of Obstetrics/Gynecology, and other professional organizations. A multidisciplinary team will develop a "care pathway" that takes into consideration gender, age, culture, and other unique characteristics of the female patient. In addition, following best practices of top medical schools in the country, the Alliance will develop a women's health education module for medical students and residents that will demonstrate the interrelationship of medical specialties in the treatment of women.

A Women's Health Council, comprised of representatives from administration and clinical specialties, has been organized to facilitate the planning process and the development of the Women's Health Service Line. The council will serve as a steering committee and will review and bring forward recommendations presented by work teams in specific areas of clinical expertise such as internal medicine, obstetrics/gynecology, and psychiatry. Once the recommendations have been accepted, implementation will occur at the clinical and operations level. These activities will take place over the next 12 to 18 months and will culminate in a center-of-excellence model of care for women of diverse backgrounds.

Breast and Cervical Cancer Initiative

In 1990, the U.S. Congress passed the Breast and Cervical Cancer Mortality Prevention Act. The legislation authorized the Centers for Disease Control (CDC) to establish a national program to ensure that women receive recommended screenings for breast cancer. The CDC coordinates these activities through partnerships with state and local public health agencies.

The Breast and Cervical Cancer Initiative of the Cambridge Health Alliance is funded by the Massachusetts Department of Public Health. The program provides free annual physical exams with Pap smears and mammograms to women forty years of age and older who are uninsured or who have insurance that does not cover these services. In 2000, coverage for Pap smears was expanded to include women eighteen and older. While the program also pays for some diagnostic procedures, it does not cover the cost of treatment. Multilingual outreach workers recruit, educate, and support women from diverse communities and link them to health care coverage if further treatment is needed.

The program maintains visibility in the community through participating in local health fairs and educational presentations in housing developments, libraries, churches, and other community locations. In FY 2001, the Alliance was awarded additional funds that will be used to expand and intensify current outreach and educational strategies.

Improving access to screening services is one of the primary goals of the Breast and Cervical Cancer Initiative, and over six hundred women were screened in FY2000. The majority of these women are 40 to 64 years old, and English is not their primary language. Portuguese-speaking Brazilians accounted for 31% of the screening participants (up 10% from last year); English speakers comprised 24%; Haitian Creole speakers, 16%; and Spanish speakers, 13%.

A new electronic billing system is expected to go online in FY 2001, which will dramatically improve data collection.

Women's Health Day 2000

The seventh annual Cambridge Women's Health Day was held on April 1, 2000 at the Windsor Street Community Health Center. Over 200 women, ages ranging from 18 to 89, attended the daylong event. A full schedule of activities included physical activity, workshops for women of all ages, resource information, massages, chiropractic spinal exams, blood pressure screenings, lunch, music, and dance. Twenty-five workshops included traditional and interactive topics.

The event was organized by a group of dedicated Cambridge women, led by the Cambridge Women's Commission. Partners included the Cambridge Health Alliance, the Cambridge Economic Opportunity Committee, the Department of Human Service Programs, The Women's Center, Reproductive Rights Network, Massachusetts Alliance of Portuguese Speakers, Healthworks, Cambridge Housing Authority, Concilio Hispano, Mount Auburn Hospital, and the Community Arts Center.

Section 4: Clinical Services of the Cambridge Health Alliance

INTRODUCTION

The Cambridge Health Alliance is an innovative health system comprised of The Cambridge Hospital, Somerville Hospital, Neville Manor Nursing Home, the Public Health Department of the City of Cambridge, over twenty primary care sites in Cambridge and Somerville, and Network Health—a managed care Medicaid health plan.

In accordance with its health services agreement with the City of Cambridge, the Alliance provides a comprehensive range of services to the diverse Cambridge community. Services include both inpatient and outpatient activities at locations throughout the city. Cambridge-based facilities include:

The Cambridge Hospital
1493 Cambridge Street

The Cambridge Birth Center
10 Camelia Avenue

Cambridge Family Health
237 Hampshire Street

East Cambridge Health Center
163 Gore Street

North Cambridge Health Center
266 Rindge Avenue

Riverside Health Center
205 Western Avenue

Windsor Street Health Center
119 Windsor Street

Teen Health Center
Cambridge Rindge & Latin School
459 Broadway

Senior Health Center
806 Massachusetts Avenue

This chapter reviews the Alliance services provided in Cambridge during FY2000. Included are the numbers of visits, discharges, and deliveries for FY2000, as well as projections for FY2001.

MEDICAL & SURGICAL SERVICES

Medicine

The mission of the Cambridge Health Alliance Department of Medicine is to offer the finest medical care to patients in the Cambridge community. The department is comprised of the following divisions: cardiology; geriatrics; hematology/oncology; neurology; occupational and environmental medicine; medical education; pulmonary; and social and community medicine. Subspecialty care includes dermatology, endocrinology, and rheumatology, as well as the Multidisciplinary AIDS and Tuberculosis Clinic. In addition, a dedicated team of clinicians provide medical care at homeless shelters in Cambridge.

A Magnetic Resonance Imaging (MRI) scanner will be added to the Cambridge Health Alliance in 2001. This scanner will significantly increase the Alliance's ability to conduct onsite diagnostic services. The scanner will increase our ability to conduct efficient diagnostic work-ups, improve educational exposure for teaching programs, and improve access for uninsured patients.

General Medicine (and Primary Care). The Cambridge Hospital and neighborhood health centers provide inpatient and outpatient general medicine. Medicine services provided at the Senior Health Center are described in the "geriatrics" section in this section.

To improve access and patient service, the Alliance is in the process of rolling out its "Open Access" program—a system that will encourage same-day appointment scheduling by primary care patients.

The Cambridge Hospital Department of Medicine offers a unique internal medicine residency training program for Harvard Medical School and participates in a number of research projects.

	FY00 Actual	FY01 Projected
Outpatient visits	66,681	68,492
Inpatient discharges	1,787	1,809

Medical Subspecialties. In Cambridge, the Alliance offers the following medical subspecialties: dermatology, endocrinology, gastroenterology, hematology/oncology, infectious disease, neurology, and rheumatology.

	FY00 Actual	FY01 Projected
Medical visits	6,282	9,893

Health Care for the Homeless. Through this program, Alliance primary care providers offer medical services at homeless shelters in Cambridge.

	FY00 Actual	FY01 Projected
Outpatient visits	1,028	1,019

Surgery

The Cambridge Hospital is currently renovating its Intensive Care Unit and surgical suites. The new units will offer state-of-the-art technology and treatment options. The department of surgery is under the leadership of a new chief, and continues to recruit talented surgeons to its skilled team.

Inpatient and Outpatient General Surgery. The Alliance continues to provide high quality general surgery services to the community.

	FY00 Actual	FY01 Projected
Outpatient visits	2,167	3,116
Inpatient discharges	357	306

Surgical Subspecialty Program. Surgical subspecialties include podiatry, ear/nose/throat (ENT), plastic surgery, urology, vascular surgery, and the Breast Clinic. The hospital also offers a podiatric surgical residency program.

	FY00 Actual	FY01 Projected
Medical visits	6,282	9,893
Surgical visits	8,974	12,695

Inpatient and Outpatient Orthopedics. Demand for orthopedic services continues to grow in this community. The department of orthopedics and rheumatology provides patient care and teaching programs of the highest quality in the diagnosis, treatment, and prevention of musculoskeletal diseases.

Orthopedics provides an array of services on an outpatient, inpatient, and emergency basis. General orthopedic surgery services include total joint replacement, spinal, hand, pediatric orthopedic surgery, and reconstructive surgery. Other department services include rheumatology and treatment of metabolic bone diseases, such as osteoporosis and Paget's Disease.

	FY00 Actual	FY01 Projected
Outpatient visits	8,337	13,164
Inpatient discharges	61	56

Women's Health Services

Under the leadership of the new chief of obstetrics and gynecology, the Alliance continues to develop its Women's Health Services as a center of excellence. Highlights of the women's health services at the Alliance include obstetrics and gynecology and the new Women's Health Center. During FY2000, women's health services focused on enhancing quality of care, recruiting staff, and developing new relationships with tertiary partners.

In 2000, the Alliance began to develop a coordinated women's health program in all primary care sites to improve the health status of women in our community. The long-term goal of this multidisciplinary program is to design and implement a well-coordinated and integrated health care delivery system that will be defined by standards of excellence, affordability, and accessibility.

OB-GYN	FY00 Actual	FY01 Projected
Outpatient visits	12,387	15,537
Inpatient discharges	833	870
Deliveries	681	799

Midwifery Program/Birth Center. The mission of the Cambridge Birth Center (est. 1997) is to provide high quality midwifery care to women. Located in the newly renovated ambulatory care center at The Cambridge Hospital, the birth center features three beautiful private bedrooms with queen-size beds and private bathrooms.

	FY00 Actual	FY01 Projected
Birth Center deliveries	90	120
Birth Center visits	2,276	2,386

Pediatric Services

A dedicated team of pediatric experts provide care at the Pediatric Center in the ambulatory care center at The Cambridge Hospital and at the East Cambridge, North Cambridge, and Windsor Street neighborhood health centers; the teen health centers; and Cambridge Family Health.

In addition to primary care, child and adolescent services at the Alliance include adolescent gynecology, adolescent and young adult medicine, allergy and asthma, cardiology, a child development center, dentistry and oral surgery, dermatology, ear/nose/throat, endocrinology, neurology, newborn medicine, nutritional services, ophthalmology, orthopedics, pediatric surgery, physical therapy/rehabilitation services, psychiatry, pulmonary, school health services, social services, and speech therapy.

Primary Care	FY00 Actual	FY01 Projected
Outpatient visits	33,011	36,601
Inpatient discharges	854	950

Comprehensive Geriatrics Services

Coordination and provision of comprehensive services for the geriatric population is a strategic priority of the Alliance. The Geriatrics Task Force continues to oversee development of a Center of Excellence in geriatrics to improve coordination of care and increase access to services.

Specific programs include the Geriatric Psychiatry Consultation Service, which offers inpatient, outpatient, and home-based mental health services for the elderly and the chronically ill; the Senior Health Center, which offers adult/geriatric primary care, behavioral medicine, geriatric mental health, laboratory diagnostics, nutritional therapy, gynecology, physical therapy, podiatry, and women's health services; the Housecalls Program, which provides primary care home visits; and the Elder Services Program, which offers comprehensive services for the frail elderly.

	FY00 Actual	FY01 Projected
The Senior Health Center visits	4,308	5,406
Geriatric Psychiatry Consultation Service visits	1,937	1,400

Cambridge-based Neighborhood Health Centers

The Alliance is committed to providing care in the community. Our five general community-based health centers are the Riverside, North Cambridge, East Cambridge and Windsor Street health centers and Cambridge Family Health. The Teen Health Center, located in the Cambridge Rindge and Latin School, provides primary care services for the adolescent student population (see "Pediatrics" section in this chapter). The Senior Center offers primary care services to the geriatric population (see "Geriatrics" section in this chapter).

The East Cambridge, Windsor Street, and North Cambridge health centers provide adult and pediatric primary care, family planning, nutrition, OB/GYN, and social services. Other services available at one or more of the sites include HIV counseling, mental health and addictions, midwifery, diabetic training, men of color clinic services, podiatry, and dentistry. Cambridge Family Health provides adult and pediatric primary care, family planning, geriatrics primary care, laboratory services, and nutrition therapy.

	FY00 Actual	FY01 Projected
Outpatient visits	86,909	99,053

Emergency Medical and Psychiatry Services

The improvements to The Cambridge Hospital Emergency Department are significant to the community. The new emergency department has doubled its size to 9,000 square feet, and has 16 fully equipped private rooms and a private pediatric treatment section with its own waiting area. The hospital plans to open an express care section to provide more rapid and efficient treatment of minor medical problems.

The newly renovated psychiatric emergency department offers intervention, diagnosis, and treatment for patients in mental health crisis. It is fully integrated with other services in the Alliance's broad continuum of community and hospital-based mental health services.

	FY00 Actual	FY01 Projected
Medical visits	24,232	25,342
Psychiatric visits	4,874	4,850

Inpatient and Outpatient Mental Health and Addictions

The department of mental health and addictions provides comprehensive adult and pediatric psychiatry services, as well as addiction services. The Alliance is committed to providing accessible mental health services for our diverse community. It has four culturally specific, linguistic mental health programs that serve the Haitian, Latino, Portuguese and South Asian communities in Cambridge.

In addition, the Geriatric Psychiatry Consultation Service provides mental health services to the city's elderly population. Victims of Violence and other programs offer support for specific high-risk populations.

The Department of Mental Health and Addictions is a Harvard Medical School teaching facility. The department offers residency training programs in adult psychiatry, child and adolescent psychiatry, clinical psychology, psychotherapy, and couples and family therapy. Training programs are also offered in clinical nursing and social work.

Mental Health &Addictions (total)	FY00 Actual	FY01 Projected
Outpatient visits	107,511	123,190
Inpatient discharges	2,872	3,184

Linguistic Mental Health Services	FY00 Actual	FY01 Projected
Outpatient visits	14,972	18,425

Victims of Violence	FY00 Actual	FY01 Projected
Outpatient visits	7,019	8,000

Nutrition Services

All ambulatory sites provide complete nutrition services, which include adult and pediatric nutrition, prenatal nutrition, specialty services for the elderly, and a specialized HIV/AIDS program at the Zinberg Clinic.

	FY00 Actual	FY01 Projected
Outpatient visits	3,794	4,718

Dental Services

The opening of the Windsor Street Dental Clinic in 1999 greatly increased the Cambridge Health Alliance's capacity to provide dental services.

	FY00 Actual	FY01 Projected
Outpatient visits	11,715	16,450

Appendix: Data Sources

Massachusetts Department of Public Health

AIDS Surveillance Program
Bureau of Communicable Disease Control
305 South Street
Jamaica Plain, MA 02130

Bureau of Substance Abuse Services
250 Washington Street
Boston, MA 02108

Childhood Lead Poisoning Prevention Program
56 Roland Street Suite 100
Charlestown, MA 02129

Massachusetts Cancer Registry
250 Washington Street
Boston, MA 02108

Massachusetts Community Health Information
Profile (MassCHIP)
250 Washington Street
Boston, MA 02108

Registry of Vital Records and Statistics
Bureau of Health Statistics, Research and Evaluation
470 Atlantic Avenue
Boston, MA 02210

Weapon-Related Injury Surveillance System (WRISS)
250 Washington Street
Boston, MA 02108

Additional State Sources

Division of Health Care Finance and Policy
(Uniform Hospital Discharge Data Set)
Two Boylston Street
Boston, MA 02116

Commonwealth of Massachusetts
Division of Medical Assistance
100 Cambridge Street Room 1804
Boston, MA 02202

Local Sources

Cambridge Police Department
5 Western Avenue
Cambridge, MA 02139

Children's Dental Program
Cambridge Public Health Department
119 Windsor Street
Cambridge, MA 02139

Charles River Watershed Association
2391 Commonwealth Avenue
Auburndale, MA 02466

City of Cambridge Water Department
250 Fresh Pond Parkway
Cambridge, MA 02138

Teen Health Survey and Middle School Survey
Cambridge School Department
159 Thorndike Street
Cambridge, MA 02141

Publications

Annual Report of the American Association of Poison Control Centers (1996)
Toxic Exposure Surveillance System (TESS)
American Association of Poison Control Centers
3201 New Mexico Avenue, Suite 310
Washington, DC 20016

Annual Crime Report 1999
Cambridge Police Department
5 Western Avenue
Cambridge, MA 02139

Healthy People 2010
Department of Health and Human Services
Public Health Service
Centers for Disease Control and Prevention
Nation Center for Health Statistics
6525 Belcrest Road
Hyattsville, MD 20782

Massachusetts Youth Risk Behavior Survey Results (1999)
Massachusetts Department of Education
350 Main Street
Malden, MA 02148

Massachusetts Tobacco Survey (1993)
A Report to the Massachusetts Department of Health
Lois Biener, Floyd J. Fowler, Jr. & Anthony M. Roman
Center for Survey Research
University of Massachusetts, Boston

Miscellaneous

United States Environmental Protection Agency
Office of Air Quality Planning and Standards
http://www.epa.gov/airs/

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