

Communities Working Together for a Healthier New York

*Opportunities to
Improve the Health of
New Yorkers*

**Report to the Commissioner of Health
Barbara A. DeBuono, M.D., M.P.H.
from the New York State Public Health Council**

September 1996

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Dear Dr. DeBuono:

On behalf of the Public Health Priorities Committee, I am pleased to present *Communities Working Together for a Healthier New York; Opportunities to Improve the Health of New Yorkers*.

The primary goal of this report is the prevention of the leading causes of disability, morbidity and premature mortality in New York State by setting health objectives for the next decade. In preparing this report, the Committee sought broad input from New York's communities by holding six regional workshops during which participants discussed the leading health problems in their communities. Over 1,400 persons attended these meetings. The Committee also received comments from the public via electronic and hard copy mail and a toll-free telephone line, and consulted with state and local public health officials from New York and other states. Information about the current health status of New Yorkers and progress towards the national health objectives in *Healthy People 2000* were carefully considered in the process of setting New York's objectives.

Across the state there was enthusiastic interest and support for the priority-setting process. The input from the community was extremely valuable and is reflected in the community focus of the report. The Committee also received strong support from the many staff who worked hundreds of hours to make this report a reality. The Committee expresses their deep appreciation for their great energy, insights and expertise. This support and commitment of staff to the work of the Committee formed a seamless effort without which this report would not have been possible.

This report calls upon all New Yorkers to work together to improve our health. I trust that the enthusiasm that was apparent during the regional workshops throughout New York will build as we undertake the challenging opportunities presented in this report. I look forward with great anticipation to working with you and the Department of Health on addressing these important public health priorities.

Sincerely,

A handwritten signature in black ink, reading "Mary E. Hibberd". The signature is written in a cursive, flowing style with a large initial "M".

Mary E. Hibberd, MD, MPH

Chair

Public Health Priorities Committee

Public Health Priorities Committee

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* Mr. Fish died before the publication of this report. The Public Health Priorities Committee acknowledges Mr. Fish's many years of dedicated service to New York State and his conscientious contribution to this report, as reflected by his active participation on the Committee until several days before his death.

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Key to Abbreviations

AHCPR	Agency for Health Care Policy and Research
BLS	United States Bureau of Labor Statistics
BRFSS	Behavioral Risk Factor Surveillance System
EPA	United States Environmental Protection Agency
ETS	Environmental Tobacco Smoke
HIV	Human Immunodeficiency Virus
HP 2000	Healthy People 2000
NCI	National Cancer Institute
NYSDOH	New York State Department of Health
NYSDOL	New York State Department of Labor
NYSDSS	New York State Department of Social Services
NYSED	New York State Education Department
NYSOASAS	New York State Office of Alcoholism and Substance Abuse Services
PRAMS	Pregnancy Risk Assessment Monitoring System
SPARCS	Statewide Planning and Research Cooperative System
STD	Sexually Transmitted Disease
VS	Vital Statistics
YRBS	Youth Risk Behavior Survey

Communities Working Together for a Healthier New York

Opportunities to Improve the Health of New Yorkers

Summary

Improving the health of New York's communities is essential for the future of our state. Although New York has been successful in decreasing disease, disability, and premature death throughout this century, there is a critical need for further action to improve the health of New Yorkers. Recognizing this opportunity, Commissioner of Health Barbara DeBuono, M.D., M.P.H. asked the New York State Public Health Council to recommend priority areas for public health action in New York for the next 10 years. This report presents these recommendations.

In developing this report, the Council appointed a 19-member Public Health Priorities Committee to seek statewide input and to recommend health objectives for New York. The Committee held six regional workshops across the state during May 1996. More than 1,400 New Yorkers participated in these meetings, discussing the most serious public health issues in their communities, the underlying causes of these problems, and interventions that could be most effective. The Committee also received input from state and local public health professionals and other New York agencies, surveyed other states for their experiences in identifying health objectives, and reviewed indicators of New York's current health status in comparison with those of the rest of the nation and with the national *Healthy People 2000* objectives.

With this report, the Committee's overarching goals are to focus community attention and stimulate action in those areas that can lead to the most significant improvement in the functional lifespan of all New Yorkers and reduction in health disparities among our citizens. In identifying the health priority

areas, the Committee relied heavily on the input received at the regional workshops and was guided by the following five principles:

1. Local communities can have the greatest impact on health by intervening in the **causes of poor health**, rather than focusing on the health problems themselves.
2. The greatest improvements in health can be achieved in areas where there are **effective interventions that involve the entire community and the individual**.
3. The priority health areas must address those conditions that result in the **greatest morbidity, mortality, disability and years of productive life lost**.
4. The priority health areas should reflect **problems of greatest health concern to local communities**.
5. Progress should be measurable through **specific, quantifiable, and practical objectives**.

The Committee identified the following 12 priority areas for public health action (listed alphabetically, not by importance):

- Access to and Delivery of Health Care
- Education
- Healthy Births
- Mental Health
- Nutrition
- Physical Activity
- Safe and Healthy Work Environment
- Sexual Activity
- Substance Abuse: Alcohol and Other Drugs
- Tobacco Use
- Unintentional Injuries
- Violent and Abusive Behavior

Each priority area chapter in this report lists one or more specific objectives to be used as measures of progress during the next decade. These objectives should be viewed as sentinel indicators of how well New York is achieving healthier communities, not direct measures of all the major causes of death, disease, and disability in New York.

This report is directed to local communities, where public health problems are often best addressed. For the purpose of this report, “communities” can be considered to be New York counties, although in certain regions of the state, several counties with similar public health challenges may develop a multicounty “community” approach, and in other regions, communities within one county may each focus on different public health challenges.

With an emphasis on local community action to effectively address the underlying causes of poor health, this report uses a nontraditional framework for setting priorities.

For example, the Committee recognized the paramount importance of such diseases as AIDS and coronary heart disease, but chose to address them by focusing on their underlying causes rather than by making each disease a priority (for example, unsafe sex and substance abuse address the transmission of AIDS, and poor nutrition and physical inactivity address heart disease). For similar reasons, this report is not organized according to traditional subspecialties within the field of public health. There are no chapters dedicated to infectious disease, environmental health, or chronic disease.

Even the chapter on a safe and healthy work environment encompasses more than the traditional field of “occupational health.” The emphasis is on broad, crosscutting prevention strategies involving everyone in a community, rather than on narrowly defined responsibilities of public health subspecialists. Nevertheless, the Committee also recognized the essential role of public health professionals and the need to maintain and strengthen the ability of state and local health departments to fulfill their essential role in all areas of public health (see chapter on “The Essential Public Health Infrastructure”).

This report calls upon communities to become more involved in promoting the health of their residents and individuals to learn how they can improve their own health and that of their community. Successful intervention in each of the 12 priority areas of opportunity will require active support and involvement by many community players. In each chapter, there are examples of actions that may be taken by different players to help achieve specific objectives. By working together, players in a community can be far more effective than by working alone.

Communities have made great strides in improving public health. It is the Committee’s hope that this report will encourage all New Yorkers to work together to build on this progress. Action at the community and state level is necessary if we are to succeed. The Committee has included a number of recommendations for the community and state to guide this process.

With all communities working together, we *will* achieve a healthier New York.

Introduction

The steady improvement of our communities' health is essential for the future of New York.

If New York is to continue as a desirable place to live and raise families in the 21st century, if New York is to enhance its competitiveness in national and international markets, if New York is to retain its international stature in business, education, the arts, research and development, and in short, if New York is to ensure the steady creation of opportunities for its citizens, all New Yorkers must be as healthy as our knowledge, technology, and commitment permit.

The steady improvement of our communities' health is achievable in New York.

New York's tradition has been to be at the forefront in promoting health and preventing disease. In the early part of this century, a major cause of infant mortality was diarrheal illness resulting from improperly handled milk. By establishing baby health stations in communities where mothers could obtain affordable pasteurized milk and instruction in proper infant care, New York City succeeded in drastically reducing infant mortality. This innovative approach quickly spread throughout the country and the world and is now recognized as a landmark in the history of the child health movement. New York was also the first to institute universal screening of newborns for sickle cell disease, now considered routine public health practice.

Through commitment to public health action, New York has achieved major reductions in diseases and premature deaths. We have eliminated polio and smallpox, and have virtually eliminated measles, which used to afflict nearly 50,000 children in New York each year. We have reduced the death rate from heart disease by 15 percent since 1980; have reduced infant mortality from 11 per 1,000 babies born in 1984 to 8 per 1,000 in 1993; have reduced maternal mortality in childbirth from 20 per 100,000 births in 1983 to 11 per 100,000 in 1993; and have reduced

deaths from unintentional injuries from 26 per 100,000 in 1984 to 24 per 100,000 in 1993. As a result, we have prolonged the years of life of New Yorkers from 70 years in 1960 to 75 years in 1993. These accomplishments of the past provide hope for the future.

The steady improvement of our communities' health requires the commitment of all New Yorkers and the collaboration of all sectors of our society.

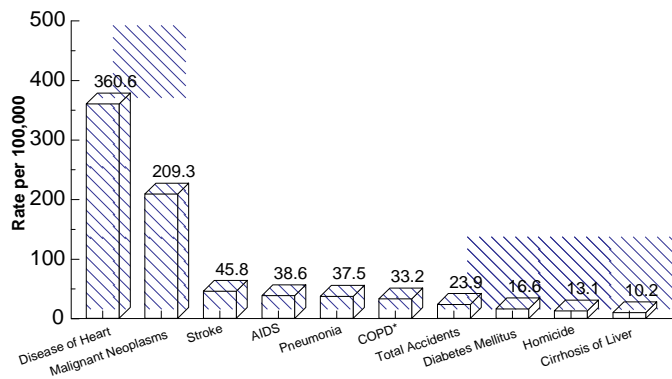
Together, state and local health departments must fulfill their responsibility for public health, and communities must foster alliances among business and other public and private organizations to achieve healthy communities. A new partnership in community health is emerging, one in which individual citizens, health care providers, business, labor, educators, environmental advocates, other community-based organizations, and the media all play essential roles. Such a broad-based, coordinated approach is especially needed in these times of increasing fiscal constraints and highly complex problems that limit the ability of government agencies to address all our health needs. With all New Yorkers working together to improve community health, the benefits will be greater than the sum of individual efforts.

The steady improvement of our communities' health will require an unrelenting commitment.

Although New York has made great progress in improving the health of its citizens, there is still much to do. Diseases of the heart remain the leading cause of death among New Yorkers; New York has the highest mortality from heart disease in the nation. Cancer is the second leading cause of death in New York, and current estimates indicate that one of every three New Yorkers will develop cancer in his/her lifetime. Communicable diseases pose a major threat to New Yorkers. AIDS, for example, is the leading cause of death among New Yorkers aged 25 to 44 years and is still increasing.

Top 10 Causes of Death

New York State, 1993



*COPD=Chronic Obstructive Pulmonary Disease

There are also major disparities in disease and death rates among different populations of New Yorkers. For example, black New Yorkers continue to have almost a two-and-a-half times higher infant mortality rate as white New Yorkers. Also, lung, breast, and cervical cancers are diagnosed at later stages among New York City women compared with women throughout the rest of the state.

Maximizing our health is the goal.

Governor George Pataki and Commissioner of Health Barbara DeBuono have declared that good health for all New Yorkers is a paramount goal. To chart a course to good health, Commissioner DeBuono asked the Public Health Council, a statutory body dealing with public health issues in the state, to recommend priority areas for public health action in New York for the next 10 years. The Council appointed a 19-member committee, which sought broad community input from across the state and then recommended important areas for public health action with specific objectives for measuring progress through the year 2006.

In this process, the Committee carefully reviewed indicators of New York's current health status in comparison with those of the rest of the nation and with the health objectives that have been published for the nation in *Healthy People 2000* (HP 2000). In some areas, New York is doing well and in others, poorly. New York's mortality rate from unintentional injuries is 33 percent below the national rate and already meets the HP 2000 objective for the nation. Ninety percent of New Yorkers have community water supplies that meet federal standards, well above the national proportion of 68 percent and the HP

2000 goal of 85 percent. However, in the area of physical activity, only 15 percent of adult New Yorkers report that they are physically active, lower than the national average of 24 percent and much lower than the HP 2000 goal of 30 percent. Lack of physical activity contributes to New York's high death rate from heart disease.

While the Committee relied heavily on these health indicators, they also sought input from a wide variety of other sources. Most importantly, they heard from communities across the state. A toll-free telephone line and Internet access were established to receive comments from the public. Six regional workshops were conducted in Albany, Batavia, Binghamton, New York City, Stony Brook, and Syracuse during May 1996. Of the estimated 1,400 participants, approximately 24 percent were health care providers (individual practitioners and providers from health organizations, hospitals, and long term care facilities), 22 percent were local government officials and staff, 12 percent were staff from community-based organizations, 11 percent were educators, 7 percent were from professional health associations, 5 percent from state government, 4 percent from advocacy groups, 2 percent from business, and less than 1 percent each from labor, Indian Nations, and the federal government (affiliation was unknown for 11 percent). All but two upstate counties were represented by county public health staff, including 45 of the 58 county public health directors. Participants expressed what they felt were serious public health issues, what they saw as the underlying causes of these problems, and what interventions were most effective to deal with their communities' health problems. Their comments provided critical information that largely shaped this report. The Committee also received input from other New York agencies, and surveyed other states for their experience in selecting health objectives.

This report represents a call to action for communities to become more involved in promoting the health of their residents and an appeal to individuals to learn how they can improve their own health and take action to improve the health of their community.

This report calls upon state and local health departments to become champions of a cooperative, integrated, individual-focused **health strategy** (not **disease strategy**) in every community. Although health departments will lead in some efforts, they will more appropriately be a partner in others, with communitywide alliances led by business, nongovernmental organizations or other government agencies.

Achieving the Greatest Impact on Health

Focusing on the underlying causes of disease, rather than the diseases themselves, can have the greatest impact on improving the health of New Yorkers.

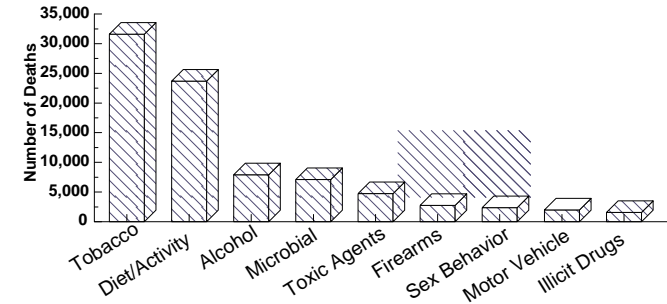
Effective interventions that address underlying causes not only prevent disease and the associated expense of treating disease, but also have a multiplier effect by preventing *multiple* disease outcomes with *one* intervention. For example, being overweight, which affects 27 percent of New York adults, is a factor contributing to multiple illnesses, including heart disease, stroke, and diabetes mellitus. Decreasing the prevalence of overweight New Yorkers would have a major impact on many of the leading causes of illness and death.

A 1993 study by McGinnis and Foege in the *Journal of the American Medical Association* further illustrates this point. The authors estimated that approximately half of all deaths that occurred in 1990 in the nation could be attributed to external (nonbiological) factors. Extrapolating these results to New York State shows that the first three underlying – or actual – causes of death (tobacco, diet/activity, alcohol) accounted for approximately 37 percent of all deaths in New York in 1993. Interventions that decrease these underlying factors would have a profound effect on the health of New Yorkers.

Focusing on the underlying causes of disease is important even for those diseases for which there is effective therapy, since treating disease after its onset rarely eliminates its threat to communities. For example, the spread of tuberculosis, through conditions of crowding, poverty, and poor utilization of medical screening, continues despite the

Actual Causes of Death Estimated

New York State, 1993



Adapted from McGinnis M et al. "Actual Causes of Death in the United States," JAMA, November 10, 1993, Vol. 27, No. 18; 2207-12, using NYS deaths and population counts for 1993

availability of effective therapy for most cases. Elimination of tuberculosis requires addressing its underlying causes.

Communities have made much progress in decreasing some of the leading risk factors for disease. A good example is the broad-based community effort to prevent drunk driving. Among New Yorkers aged 15-24 years, the rate of alcohol-related motor vehicle deaths declined from 11 per 100,000 in 1984 to 6 per 100,000 in 1993. This progress was achieved through multiple efforts, including education by public health departments, public service announcements (for example, "Friends don't let friends drive drunk"), enhanced law enforcement, and grass roots activities such as "Mothers Against Drunk Driving" and "Students Against Drunk Driving." Another example is the decrease in smoking rates from 31 percent in 1985 to 21 percent in 1994. This decrease can be attributed to efforts on many fronts, including raising cigarette taxes; creating smoke-free zones in schools, worksites, and public places; banning certain types of advertising; providing smoking cessation programs; and physicians' prescribing aides such as nicotine chewing gum and patches. Such multipronged approaches that involve whole communities help to change social norms and make it easier for individuals to initiate and sustain behavior change.

Achieving the greatest impact on health requires action to improve the health of New York's senior citizens. New Yorkers over age 65 are among the fastest growing age groups and are expected to number more than 2.5 million by the year 2010. The special health concerns of seniors include access to high-quality, affordable health services, prevention of disabilities and maintenance of physical function, and reduction in chronic conditions such as heart disease, strokes, diabetes mellitus, and injuries.

New York's leading health problems result from multiple underlying causes.

These include behaviors (for example, smoking, overeating, unsafe sexual practices), environmental factors (for example, air pollution, unsafe drinking water), worksite conditions (for example, toxic exposures, jobs requiring repetitive motion leading to injuries), inherited factors (for example, genetic diseases), and a complex web of social factors that interfere with individual choice and access to good medical care and preventive services. These factors include unemployment, lack of education, poor parenting skills, family disintegration, and inadequate housing.

Poverty, which has been increasing in New York, underlies many of the social factors contributing to ill health. The proportion of New Yorkers who were below the federal poverty level increased from 14 percent in 1990 to 18 percent in 1995. Children under age 18 are disproportionately affected by poverty, with nearly 30 percent below the poverty level in 1995. Similarly, the proportion of New Yorkers who do not have health insurance has increased from 12

Percentage of New Yorkers Below Federal Poverty Level

<i>Age</i>	<i>1990</i>	<i>1993</i>	<i>1995</i>
<i>0-17 years</i>	23%	29%	29%
<i>Total</i>	14%	17%	18%

percent in 1990 to 16 percent in 1995.

Many of the disparities in health outcomes among social/ethnic subpopulations of New Yorkers are a reflection of economic differences that interfere with access to and utilization of medical care and preventive services. They are also a result of different social norms leading to more risky health behaviors, more dangerous jobs, more stress, and less healthy housing conditions.

Guiding Principles for Defining the Priority Areas of Opportunity for Community Action

The overarching goal of this report is to focus community attention and stimulate action in those areas that can lead to the most improvement in functional lifespan and reduction in health disparities among New Yorkers.

Although we cannot prevent all disease nor indefinitely postpone death, we can decrease the premature onset of disease and prolong healthy life.

The Committee followed several guiding principles in defining the priority health areas for community action in this report. These principles are based on the Committee's conviction that improving community health requires the participation at local levels and the development of stronger partnerships among health care providers, community organizations, state and local health departments, and all the residents they serve.

Selection of the priority health areas was guided by the following principles:

1. Local communities can have the greatest impact on improving the health of their residents by intervening in the **causes of poor health**, rather than focusing on the health problems themselves. Because an underlying cause can lead to multiple health problems, intervening in a few root causes can have significant effects on several health outcomes.
2. The greatest improvements in the health of New Yorkers can be achieved by focusing on the causes of ill health for which there are **effective interventions that involve the entire community and the individual**. Effective public health interventions require community involvement and commitment to changing social norms. Although health departments will continue to play important roles in improving public health in New York, community involvement is essential to more general success.

3. New York's priority health areas must address those conditions that result in the **greatest morbidity, mortality, disability, and years of productive life lost** among New Yorkers. Focusing on these conditions helps to ensure the greatest impact on improving health.
4. Because community involvement is essential to successful public health action, the priority health areas should reflect **problems of greatest health concern to local communities**. The Committee, therefore, paid close attention to the input it received from communities during the regional workshops.
5. Progress in public health should be measurable through **specific, quantifiable, and practical objectives**. However, the selection of objectives was not limited to public health problems with available data for establishing a baseline. For areas where there are no current data, the Committee recommends the development of new data systems.

Input from New York Communities

The formulation of the priority health areas in this report was strongly influenced by input from New York communities received at the regional workshops.

These workshops were designed to be interactive working sessions rather than hearings, led by professional group facilitators. (See Appendix A for a summary of the workshops.) During these day-long meetings involving residents throughout New York, participants worked in small groups and discussed risk factors for poor health and adverse health outcomes that they felt to be important in their community. The following were among the most often identified community problems:

Risk Factors for Poor Health

- Alcohol and Substance Abuse
- Disintegration of Family/Community and Loss of Family Values
- Inadequate Preventive Services
- Lack of Access to Health Care

- Lack of Access to Health Education
- Lack of Adequate Health Insurance
- Physical Inactivity
- Poor Nutrition
- Poverty
- Tobacco
- Unsafe Sexual Behavior
- Violent/Abusive Behaviors

Adverse Health Outcomes

- Addictions
- Adolescent and Unintended Pregnancies
- Cancer (Especially Breast and Lung)
- Coronary Heart Disease
- Domestic and Community Violence, including Sexual Violence/Abuse
- HIV/AIDS
- Overweight
- Poor Pregnancy Outcomes
- Sexually Transmitted Diseases
- Stress and Mental Illness; Depression, Anxiety

Participants at the workshops were asked to discuss public health interventions that were particularly effective in their community, since the availability of such interventions was an important guiding principle for defining areas of opportunity for community action. One of the major intervention themes that emerged was the important role of education (see chapter on "Education"). The provision of adequate education has long-term benefits for both the individual and the community, and is a strong investment in the future. Another theme was the importance of maintaining the public health infrastructure so that our past and current successes in community health are not lost through negligence or lack of continued commitment of resources (see chapter on "The Essential Public Health Infrastructure").

Although special concerns were voiced at the workshops, there was generally broad consensus across New York regarding the leading health problems of communities and their underlying risk factors. It was clear that many workshop participants felt there were programs that have been effective in addressing some of these problems, but many people are unaware of what is being done in their communities. These community

efforts can be better utilized and coordinated by drawing on the high level of public health interest and community expertise that was apparent at the workshops.

Opportunities for Local Communities to Improve the Health of New Yorkers

This report outlines 12 areas of opportunity where communities can have the greatest impact on the health of New Yorkers.

One or more specific objectives to be used as measures of progress in the next decade are listed within each area. The target for each objective was based on several considerations, including the current status and recent trends in the problem in New York, setting a reasonable but challenging target level for the year 2006, and national objectives in *HP 2000*. The objective should be viewed as sentinel indicators of how well New York is doing in achieving healthier communities, rather than as direct measures of all the important diseases and causes of death and disability in New York, which are far more numerous than the 20 objectives in this report. The 12 selected areas of opportunity are not intended to be all-inclusive nor to limit community action; communities with health problems not covered by this report are encouraged to take appropriate action. However, successful action in the 12 selected areas will result in a reduction in the specific causes of death and disease that create the heaviest burden on New Yorkers and significantly increase the healthy lifespan of New Yorkers.

The raging epidemic of human immunodeficiency virus (HIV) in New York provides an example of how communities can use this report to achieve the greatest impact on health. New York leads the nation in the number of reported AIDS cases, as well as the number of people infected with HIV, as indicated by the high prevalence of HIV among childbearing women. AIDS is now the fourth leading cause of death in New York

and the leading cause of death among 25-44 year olds. To effectively address this epidemic, communities must maximize their efforts at preventing further transmission of HIV. Three opportunity areas in this report are particularly relevant to the control of HIV:

- delaying the onset of sexual activity, the promotion of safe sex and the distribution and proper use of condoms that decrease the sexual spread of HIV (see chapter on "Sexual Activity");
- controlling substance abuse and the use of harm reduction techniques that decrease the spread of HIV by injection drug use (see chapter on "Substance Abuse: Alcohol and Other Drugs");
- early counseling and use of anti-retroviral therapy for HIV-infected pregnant women that decreases the transmission of HIV to newborns (see chapter on "Healthy Births"). By addressing HIV transmission, communities can significantly decrease the impact of AIDS on New Yorkers. Like AIDS, many other health problems that are not specifically mentioned in objectives in this report, can effectively be addressed by focusing on the underlying causes in the 12 priority areas.

The following table demonstrates the potential impact of successfully implementing interventions in the opportunity areas in this report. Addressing the 12 areas can significantly decrease the 10 leading causes of death and other major causes of illness and disability. This approach can improve the health of different populations, from infants to senior citizens, mothers, and minorities.

Some of the health disparities among various populations present special challenges for communities to identify and address. It is impractical in this report to define gaps in health for all subpopulations within communities. As reflected in the fourth objective in the priority area "Access to and Delivery of Health Care," each community must identify its own populations with special health problems and create appropriate, measurable objectives. As one of the major "gateways" into the country for immigrants, New York includes many foreign-born residents. Where necessary, interventions to improve their health will require consideration of their language and cultural patterns of behavior and health care.

Communities Can Achieve Improved Health

Through broad-based collaboration, communities can achieve the objectives presented in this report.

Previously mentioned examples of successes include community actions to prevent drunk driving and decrease cigarette smoking. Another example of a community pulling together to make a difference is Cortland County's ZAP or ZERO Adolescent Pregnancy effort. This is a coalition of community energies, led by the Cortland County Health Department, the YWCA, and the Cortland Youth Bureau. The coalition's 10 year objective is to reduce by one-third the number of teen pregnancies in Cortland County. From 1990 to 1993, the rate of teenage pregnancy in Cortland County dropped by almost 26 percent. Currently, the number of teenage pregnancies in Cortland County is the lowest it has been in 20 years. This decrease coincides with the efforts of the ZAP Coalition which began in 1991. They include:

- providing a Lunch 'n Learn series entitled "How to Talk With Your Kids About Sex" at various Cortland work places;
- training clergy and religious education leaders so that they may provide sexuality education in their faith communities;
- training teens (ZAP - PEERS) in communication and resistance skills so that they can do panel presentations in schools and the community;
- providing teachers with graduate training in abstinence-based curricula;
- working with foster care, Liberty Partnership, and alternative high school youth to postpone sexual intercourse and pregnancy;
- encouraging the postponement of initial sexual intercourse among never married preteens and teens;
- providing free-of-charge birth control services to high school aged youth who become sexually active; and
- working extensively with the media to create a community awareness of the problems associated with teen pregnancy.

Successful action in each of the priority health areas will require a broad community approach that enlists the active support and participation of many types of community players. For each of the 12 areas of opportunity, this report includes examples showing how different groups – whether they be colleges and universities, community based organizations, government, health care providers, the media, schools, or worksites – can each play an essential role. Activities of these different groups can reinforce each other and contribute to broad community goals. For example, school health education by itself will not accomplish very much if children are bombarded with conflicting messages outside the classroom. Businesses can contribute to every objective, not just those dealing with occupational hazards. The activities that are suggested in this report are intended to be illustrative examples and to encourage creativity for developing action plans appropriate to the local community. A particular community group may want to engage in one or more of the activities identified in this report or may want to develop its own approach.

Multipronged cross-section approaches take time to develop and coordinate. They require a strong, supportive public health infrastructure and the commitment of new resources. In these times of fiscal constraint, state and local government and community groups must be vigilant in the use of limited available resources in the most cost-effective manner, develop new funding support where possible (for example, government grants, private foundations, charitable organizations, business), and make optimal use of volunteer and citizen action groups.

The key to improving the health of New Yorkers is the "community" in "community health." We all must know and understand what health is, and how health risks affect us. The participation of the community is vital to appropriate assessment, program planning, and targeting of resources, and provides a strong advocacy base for community health.

Taking Action

This report represents a beginning in the important process of improving the health of all New Yorkers. The most critical steps are

yet to come, that is, the mobilization of communities to implement the necessary actions and changes to reach New York's health goals. For the purpose of this report, "communities" can be considered to be New York counties, although in certain regions of the state, several counties with similar public health challenges may develop a multicounty "community" approach, and in other regions, neighborhoods within one county may focus on different public health challenges.

A great deal of community planning and partnership development has occurred in New York. The hope is that this report will help communities continue to build on previous accomplishments. Recognizing that the state and local health departments cannot effectively do this job alone, and that broad-based, concerted community effort will be needed, the Committee recommends the following action steps.

Community Level Action

1. Select a convener.

The best efforts risk failure if they are not properly supported with appropriate local organization. The local convener/facilitator should have the skills, funds, tools, and community support necessary to fulfill this role. Local health departments are one logical choice as convener, but communities may find others well suited to serve in this role.

2. Convene a local planning group.

If whole communities (the public, the voluntary sector, private enterprise, and government) are to be fully invested in reaching these health goals, coordination and collaboration will be needed. Local planning groups, composed of key stakeholders within the community, should generate and organize intervention strategies within communities. Participation must extend beyond those traditionally involved in health care issues, to represent the full diversity within communities, since every member of the community has a role to play and tangible benefits to gain.

3. Gather information for informed decision making.

Communities need good information for decision making. They must have access to meaningful data and the means to

transform the data to meaningful information in order to develop local performance standards, evaluate the effectiveness of local intervention programs, and measure progress toward local objectives. All citizens have a role to play and a story to tell about the community as they know it. These stories provide meaningful insights into the community's health practices, health beliefs, and care-seeking behaviors. Use of this information has the following benefits:

- the ability to achieve a solid assessment of the community, based not only on objective data, but also on the various points of view represented in the community;
- the increased likelihood of formulating realistic community expectations for what can be accomplished; and
- an expanded advocacy for health issues within the community.

4. Develop locale-specific intervention strategies .

New York has a large and diverse population. It is important to recognize that effective interventions will vary among communities, and that strategies should be tailored to local population groups. Furthermore, public health problems vary across the state, and priorities differ from region to region. Localities will have to reach consensus on which objectives are most important to their particular community.

5. Decide who will do what.

All of the players will have to decide what role they can play in working most effectively toward these objectives. In some cases, the simple act of better informing communities of existing programs may have a big impact. In other cases, forming stronger linkages among stakeholders with common objectives may move the community toward achievement. In still other cases, new action plans may have to be formulated and/or resources shared.

6. Monitor progress.

Armed with timely information, and using the eyes and ears of its members to extend its monitoring, local planning groups can be well prepared to follow their communities' progress. Progress toward milestones will have to be evaluated, and expectations

readjusted, as necessary. Throughout the process, barriers to progress must be examined and systematically addressed.

State Level Action

Although improving the health of all New Yorkers requires a structured, purposeful process on the local level, there is also an essential role for the state in assisting local communities in taking action in the priority health areas.

1. *Develop better monitoring and data systems.*

Monitoring progress in improving community health requires community-level information. Since most health data systems are maintained at the state level, the State Health Department, in partnership with localities, should assess current gaps in health data and provide localities with information that is easily accessible, timely, responsive, and useful. All communities must be involved in designing data sets that are meaningful and that reduce redundancy (for example, duplicate case reports). Data handling expertise within the private sector can help in the development of optimal data systems. We must have the means to know how generalizable data are because it will be impossible to collect all data in all communities.

Specifically, there is a need for the following types of information:

- Knowledge, attitude and behavior surveys that yield information at the county, school district or community level. There are gaps in data currently available to communities about the knowledge, attitudes, and behaviors of local residents. The Youth Risk Behavior and Pregnancy Risk Assessment Monitoring Surveys, for example, currently include only the counties outside New York City. The Behavioral Risk Factor Surveillance System (BRFSS), which collects valuable information on behaviors associated with chronic diseases, is only available at the state level, and is of limited use for county and subcounty needs assessments.
- Community-level information on the quality of life, especially with regard to the elderly. Functional status indicators, indicative of well-being and quality of life,

need further development. Expansion of the BRFSS, to collect such information below the state level, is recommended.

- Better collection and use of occupational health and safety data. These data are currently collected by several agencies, have limitations, and are not utilized as much as they might be. For example, health planners may be able to make better use of existing Workers' Compensation and Bureau of Labor Statistics information.
 - Mental health indicators. Regional workshop attendees frequently mentioned poor mental health as a problem in their communities. However, population-based information on the occurrence of many mental conditions, such as depression and anxiety, is incomplete. Indicators of the overall emotional health of the population are lacking.
 - Ambulatory care information. The Statewide Planning and Research Cooperative System (SPARCS) provides useful data regarding conditions for which people are hospitalized. However, as more conditions are handled in the outpatient setting, information on hospitalizations becomes less helpful for assessing community health. A system for the collection of ambulatory care data should be developed, providing information useful for both state and local assessment.
- ### 2. *Dedicate the necessary resources to ensure adequate capacity at the local level.*

Effective collaboration requires use of resources to plan and coordinate efforts. The State Health Department must make funds available through local health departments for community health assessment and formulation of strategies for action. This would ensure that each community receives baseline support for its efforts. However, past public health successes must not be jeopardized by diversion of resources. New York cannot afford to dismantle the systems that are currently successfully battling public health problems.

Improving the capacity at the local level for policy development can also assist communities to reach their health objectives. Possible steps include:

- training and research initiatives that pair agencies with colleges and universities;
- use of newer communications technologies such as satellite learning; and
- state aid incentives.

3. Develop performance measures.

Performance measures are needed to evaluate the effectiveness of public health interventions on both the state and local levels. Performance measures may be

either outcome measures or process/systems measures. This information can then be used to develop a state and local “report card” on progress.

4. Establish a public health intervention clearinghouse to assist localities in sharing their experiences and learning from each other.

Communities that have successfully improved the health status of their residents should be showcased, and their success stories shared.

The Essential Public Health Infrastructure

This report emphasizes the importance of community action, as opposed to government action alone, in promoting the health of New Yorkers. As a result, some aspects of public health in which government plays a leading role (for example, ensuring a safe and healthy environment and maintaining surveillance for and control of infectious diseases) are not presented as priority areas for community action in this report. Government, as an important component of the public health infrastructure, must continue to meet its responsibilities in all areas of public health.

One of government's primary responsibilities is the protection and promotion of the public's health. Public health services include the control of infectious disease outbreaks, the provision of a clean and safe environment, oversight of appropriate standards for environmental and occupational exposures, protection against avoidable injury and disability, assurance of quality health care, provision of public health laboratory services, education of the public about and promotion of healthy lifestyles, and response to disasters. State and local health departments, and all the programs that they support, are the main components of the public health infrastructure that fulfills these many responsibilities.

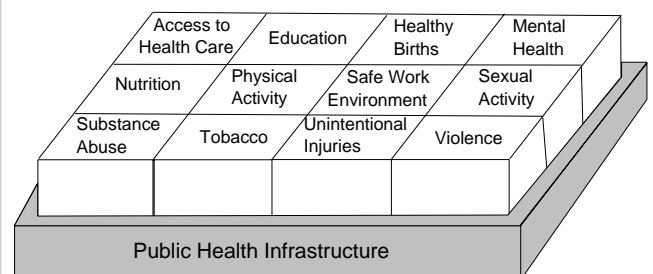
To be effective, this infrastructure must include both the personnel and technological tools to support all important public health functions. Personnel must be well trained, motivated, and paid to perform these vital functions, and include a wide array of professionals: doctors, nurses, epidemiologists, statisticians, computer programmers, nutritionists, sanitarians, engineers, lawyers, behavioral scientists, members of the media, public laboratorians, researchers, public affairs experts, managers, and volunteers. These personnel must be present at both the local and state level to respond to health problems in the population. Technological tools include computers and communications equipment,

laboratories, and environmental monitoring.

Maintaining and improving drinking water quality is an example of one of the critical functions of the public health infrastructure. All New Yorkers depend on a safe water supply. While the advent of water treatment stopped the spread of cholera earlier this century, hazardous chemicals and newly emerging pathogens continue to threaten the safety of public drinking water. Groundwaters can be contaminated with hazardous chemicals resulting in long-term exposures to potential cancer-causing substances, while microbial contamination continues to be a concern for surface water supplies. Recent waterborne outbreaks of giardiasis and cryptosporidiosis dramatically reminded public health officials of the need for constant vigilance of our drinking water delivery system. State and county health departments must provide comprehensive water quality monitoring and surveillance and assure that water suppliers provide effective treatment, operations, and maintenance. Watersheds and wellheads must be protected through a cooperative effort among health and environmental agencies, local municipalities, water suppliers, local business and industry, and the consuming public.

Participants at the community workshops throughout New York affirmed their strong support for maintaining and improving the public health infrastructure and their concern over the obvious danger in dismantling successful public health programs. New York's recent experience with tuberculosis illustrates this danger. In the 1970s, tuberculosis was

Public Health Infrastructure: Foundation for 12 Priority Areas of Opportunity for Improving Community Health



considered to have been brought under control. In the 1980s, partly as a result of the erosion of support for tuberculosis surveillance and control, tuberculosis emerged as a major public health problem. Advances in immunization, food and water safety, and communicable disease control could be similarly negated if current public health activities are not maintained.

In *The Future of Public Health*, the Institute of Medicine identified the three core functions of public health agencies as *assessment*, *policy development*, and *assurance*. The activities within these three areas are the essential foundation on which public health is built and on which New York's communities will depend to help them reach the specific objectives in the 12 priority areas in this report.

Assessment

State and local health departments must continue to systematically collect, analyze, and make available information about the health of their communities, including information on health status, community health needs and resources, and epidemiologic and other studies of current local health problems. Assessment also includes the identification of those areas where better information is needed, especially information on health disparities among different subpopulations, quality of health care, and the occurrence and severity of disabilities in the population. Meeting the need for public health information requires further development of electronic systems for efficient transfer of data while still maintaining individual patient confidentiality, state-of-the-art laboratory services for the identification of both infectious and noninfectious threats to the public health, and valid measures of public health progress in meeting the health objectives of the state.

Policy development

Another responsibility of state and local health departments is to develop sound public health policies based on scientific knowledge. Health agencies are also responsible for addressing public health problems with proven interventions, evaluating new interventions with valid and credible methods, and responding to disasters.

Assurance

The public depends on government to assure that health care and education are of the highest quality and that laws and regulations that protect health are enforced. Public health agencies have a responsibility to help coordinate health care services, monitor the quality of those services, identify underserved populations or regions of the state, provide health services when not available otherwise, promote the highest quality of care throughout the state, and promote healthy behaviors and a safe environment.

Supporting a strong public health infrastructure requires commitment to continued public funding and to maintaining well-trained public health personnel. Last year, the New York State Public Health Council concluded, "Fewer than one-fourth of the local health departments have a high capacity to provide essential services, and only about half have better than a limited capacity to do so. . . . An examination of critical health status indicators in New York State suggests that an increase in resources for population-based public health services is urgently needed." Public health agencies can play an important role in supporting the infrastructure by aggressively pursuing needed funding through legislative action and other private and public funding sources. They must also work to ensure that available resources are optimally utilized to promote and protect the community's health and that public health professionals have the right skills to work in the current changing health field. For example, the public health workforce needs skills in performance measurement, working with communities, and assessing and working with managed care organizations.

A strong infrastructure is essential not only for maintaining the public's general health, but also for reaching the specific objectives in this report. Supporting state and local health departments is in every New Yorker's best interest. To respond to future challenges, New York must strengthen the capacity of health departments to carry out essential public health activities, support disease surveillance systems (many of which go beyond the limited number of objectives in this report), continue funding for current effective public health efforts, maintain vigilance against attempts to weaken legislation that effectively protects the public's

health, and incorporate modern technology for faster information processing and better interagency and community communications.

In short, New York needs a strong public health infrastructure, because it is essential to our future health.

Priority Areas of Opportunity for Improving Community Health

Access to and Delivery of Health Care

Education

Healthy Births

Mental Health

Nutrition

Physical Activity

Safe and Healthy Work Environment

Sexual Activity

Substance Abuse: Alcohol and Other Drugs

Tobacco Use

Unintentional Injury

Violent and Abusive Behavior

Access to and Delivery of Health Care

Objective

By the year 2006, decrease the percentage of New Yorkers who are unable to see a doctor because of cost to no more than 7 percent (baseline: 13.7%, BRFSS, 1994).

Objective

By the year 2006, increase the percentage of New Yorkers receiving age- and sex-appropriate preventive health services, as measured by a preventive health services index (see Appendix B), to at least:

- 75 percent for men 18-49 years old (baseline: 51.8%, BRFSS, 1993);
- 90 percent for men 50+ years old (baseline: 80.2%, BRFSS, 1993);
- 75 percent for women 18-49 years old (baseline: 53.0%, BRFSS, 1993);
- 65 percent for women 50+ years old (baseline: 38.7%, BRFSS, 1993);
- 90 percent for two-year old children (baseline: 58%, Retrospective Kindergarten Study, 1994);
- 85 percent for women giving birth (baseline: 68.2%, Vital Statistics, 1994).

Objective

By the year 2006, increase access to ambulatory health and dental services so that:

- The number of hospitalizations for asthma for children aged 0-14 years is no more than 290 per 100,000 children (baseline: 581 per 100,000, SPARCS, 1993).
- The number of hospitalizations for otitis media (middle ear infection) for children aged 0-4 years is no more than 100 per 100,000 children (baseline: 190 per 100,000, SPARCS, 1993).
- The number of lower extremity amputations due to diabetes mellitus is no more than 5 per 1,000 diabetics (baseline: 6.9 per 1,000 diabetics, SPARCS, 1993).
- The proportion of children free of dental caries is increased to more than 75 percent for 6-8 year olds and 50 percent for 15 year olds (baseline: not available statewide; data system to be developed; national baseline: 47% for 6-8 year olds, 22% for 15 year olds, National Survey, 1986-87).

Objective

By the year 2006, reduce the disparities in cultural, financial, and system barriers to accessing and receiving health care for members of special populations at the community level. (Measures to be determined at community level.)

Rationale

Lack of access to primary care results in poor health status outcomes. Primary care, including prenatal care, provides a prime opportunity for prevention education, early detection, early treatment, and referral to other needed health and social services. Sustained contact with a primary care provider eases the effects of long-term chronic conditions as well.

Three commonly identified barriers to access are:

- *financial barriers*—inadequate resources to pay for health care;
- *structural barriers*—insufficient primary care providers, service sites or service patterns; and
- *personal barriers*—the cultural, linguistic, educational, or other special factors that impede access to primary care.

Improving and sustaining access to high-quality, continuous primary health care and treatment services are critical to eliminating disparities in health outcomes and in the achievement of many of the public health priorities that have been identified. The hallmarks of success will be prevention, early intervention, and continuity of care through a “medical home” for every New Yorker. Success also depends on the actual delivery of appropriate health services, which requires that practitioners be knowledgeable about and practice good preventive medicine.

Size of the Problem

Financial Barriers to Care

The most significant financial barrier to health care is the lack of health insurance. In 1990, 12 percent of New Yorkers were uninsured. By 1995, that percentage rose to 16 percent. **Approximately 2.9 million New Yorkers had no health care coverage in 1995.** The problem is worse in urban areas, where 21 percent of the urban population has no coverage. The young are disproportionately affected. More than 25 percent of young adults do not have health coverage and 14 percent of children under 18 lack coverage. The uninsured rate for children rose during that period from 9.5 percent in 1990 to 14.1

percent in 1995, despite the availability of Child Health Plus (New York’s low cost health insurance program for the uninsured and underinsured) and a 3.4 percent expansion in Medicaid.

Insurance Coverage by Age and Type of Coverage

New York State 1990-1995

Insurance Coverage	Percent Covered		
	1990	1993	1995
Public			
0-17 years	21.2%	25.8%	25.7%
All Ages	23.3	25.7	26.7
Private			
0-17 years	69.2	63.3	60.2
All Ages	64.4	60.4	57.3
Uninsured			
0-17 years	9.5	10.8	14.1
All Ages	12.3	13.9	16.0

Source: Current Population Survey

Being uninsured and being unemployed are not necessarily synonymous. The uninsured are comprised of several different populations, including employees of firms that do not offer health insurance benefits, their dependents, the unemployed, and part-time and seasonal workers. The *growing majority* of all uninsured residents of the state are employees and their dependents who have lost private insurance coverage.

Oral health care services are an essential component of primary care. Poor oral health affects the ability to eat, speak, and be free from pain and infection. Preventive dental services are highly effective. Unlike medical services, the primary payment source for dental services is out-of-pocket. It is estimated that less than 45 percent of New Yorkers have some kind of dental insurance coverage. Dental insurance plans are difficult to purchase and even when available, tend to provide coverage for only a limited number of procedures. A study conducted by the Office of the Inspector General to examine the

access and utilization of dental services in 1992 under the New York State Child/Teen Health Plan, a comprehensive and preventive health care program covering all Medicaid children from birth to 21, found only 18 percent of all eligible children received preventive dental services. Not only was this lower than the national total of 20 percent, but it was also lower than that of other northeastern states. The problem of delivering dental services to the poor is further compounded by the absence of a network of public health clinics. More than 95 percent of the providers are solo practitioners and only a small proportion of them participate in the Medicaid program.

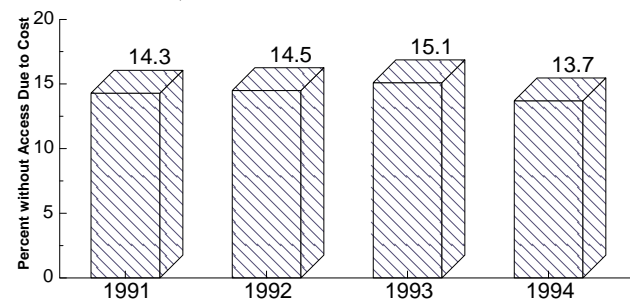
Lack of health insurance limits access to quality, timely, cost-effective health care. Primary and preventive care averts many diseases and allows timely interventions for illness, injury, and developmental delay. For many New Yorkers, hospital emergency rooms serve as the only source of medical care, and frequently primary prevention is forgotten in these acute settings. The uninsured use fewer primary care visits than insured individuals, but remain hospitalized longer than their insured counterparts, reflecting a more advanced stage of illness on admission. Lack of coverage results in limited access and deferred care, which in turn leads to increased severity of illness and higher costs when services are used. The Behavioral Risk Factor Surveillance Survey indicates that in 1994, 14 percent of New Yorkers were unable to see a physician due to the cost.

Structural Barriers to Care *Underserved Communities*

Many communities in New York State, especially rural and inner-city areas, are considered underserved. There are 105

Lack of Access to a Physician Due to Cost

New York State, 1991-94



Source: BRFSS Question: "Was there a time during the last 12 months when you needed to see a doctor, but could not because of the cost?"

federally designated primary care shortage areas in New York State with more than 3.8 million people residing in these areas. The federal designation is based on access to primary care physicians, low birthweight rates, and poverty levels.

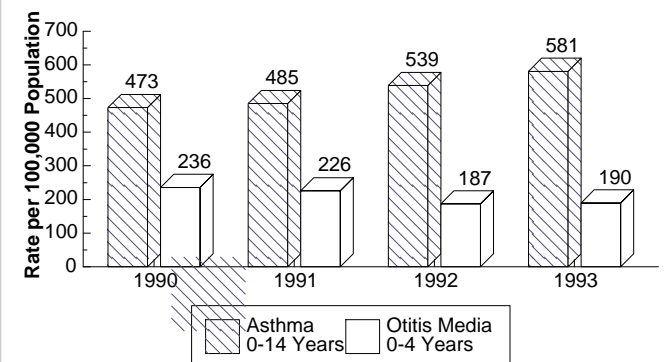
Access to primary care in rural areas is especially variable. Providers are usually clustered in small communities, but are caring for residents scattered over large geographic areas.

This factor makes the development and support of primary care services a continuous challenge, one that is exacerbated by the deepening fiscal problems of rural health facilities and by the lack of health personnel. Rural communities have half as many primary care physicians per capita as urban areas of the state.

Unmet need for primary care is also measured by the frequency of hospital admissions which could be avoided with adequate ambulatory treatment. High rates of hospitalizations for conditions such as high blood pressure, asthma, diabetes, and otitis media (middle ear infections) are indicators of

Asthma and Otitis Media Hospital Discharge Rate

New York State, 1990-93

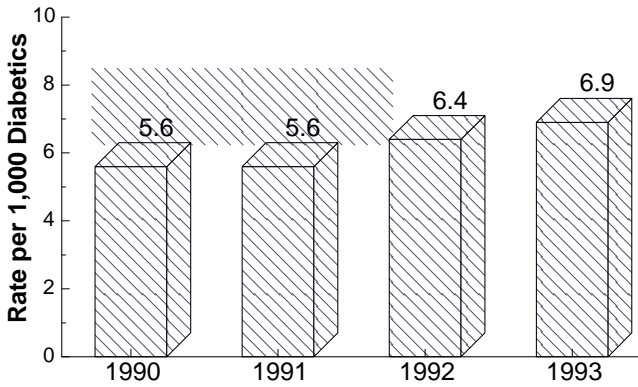


Source: NYSDOH SPARCS

problems with access to or utilization of primary health care. While pediatric admissions for otitis media are declining slightly, pediatric asthma hospitalizations are increasing. The rate of amputations due to diabetes is also increasing, indicating poor control of diabetes.

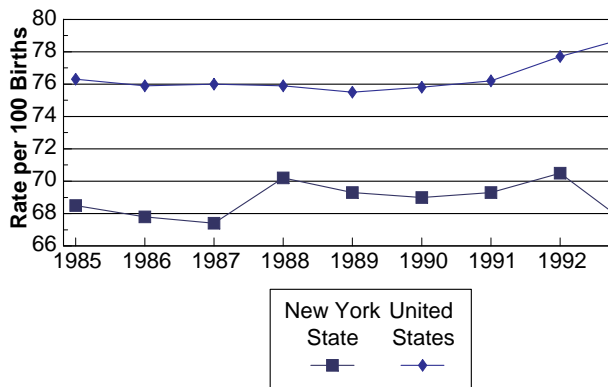
Lower Extremity Amputations Due to Diabetes

New York State, 1990-93



Early (First Trimester) Prenatal Care

New York State and the United States, 1985-94



1994 data are provisional.

Prenatal Care

Early entry into prenatal care is one of the benchmarks for measuring access to primary health care services for pregnant women, and one which is strongly related to healthy birth outcomes. Currently, New York State falls far short of the *HP 2000* goal of 90 percent first trimester entry to care. The state rate in 1994 (provisional data) stands at only 68.2 percent.

Structuring Care Appropriately: The Need for Quality and Continuity of Care

The provision of comprehensive, continuing and individualized care is an essential element in controlling chronic diseases and in developing key self-care skills. Diabetes care can be used as an example. Standards of care recommend semi-annual testing of glycosylated hemoglobin levels and foot

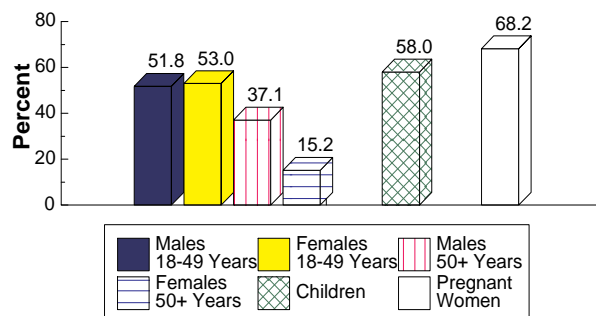
inspections at every visit. A population-based assessment of the level of care for persons with diabetes (Behavioral Risk Factor Surveillance System diabetes module, 1994) found that although 70 percent of people with diabetes reported at least one visit to a health care professional in the preceding year, only 20 percent reported that their blood glucose had been checked at least once, and about 61 percent reported that their feet were inspected at least once. Dilated eye examinations are necessary to detect visual damage common in diabetics; only 66 percent reported having had a dilated eye examination within the past year. Taken together, these data help explain the high incidence of diabetes complications.

The number of children and adults receiving age- and sex-appropriate screenings at the recommended intervals is unknown because there is currently no comprehensive data source available. For the purposes of estimating the occurrence of age- and sex-appropriate screenings, a Preventive Health Services Index was formulated. (See Appendix B.) This index indicates that:

- 51.8 percent of all males age 18-49 years old reported receiving appropriate screenings, a slightly lower percentage than the 53 percent rate for women in the same age group;
- 80.2 percent of males and 38.7 percent of females in the 50+ age group reported receiving age- and sex-appropriate screenings;

Populations Receiving Age-Sex Appropriate Preventive Health Services

New York State, 1993-94



Preventive Health Services are based on an index described in Appendix B, using data from 1993 and 1994.

- 58 percent of all two year olds are appropriately immunized; and
- 68.2 percent of all pregnant women receive prenatal care in the first trimester.

Information from the Child/Teen Health Plan indicates that about 85 percent of Medicaid-enrolled children received age-appropriate medical screening services. These data, however, are based on claims data, and assume that if the visit were claimed, all required components and screenings were performed. The data also assume that all children enrolled in Medicaid managed care are screened appropriately.

Personal Barriers to Care

Personal barriers to care may be the hardest to overcome. The characteristics of individuals and various groups, such as language, cultural values and norms, educational level, and personal circumstance, may impede access to needed care and result in above-average rates of disease, disability, and death.

Personal barriers to care may be aggravated by a health workforce that is not culturally competent. While minorities comprise only 8 percent of the physician workforce, they represent 25 percent of the population of New York. Studies have shown that black and Hispanic physicians are more likely to practice in underserved communities. In addition, these physicians are more likely to be capable of providing the culturally competent care needed.

Disparities in Health Outcomes

Disease does not affect all segments of society equally. Some groups suffer illness more often and die at higher rates than others. Disparities often result from the interplay of financial, structural and personal issues like socioeconomic conditions, culture, language, and education. Frequently cited problems creating disparities include:

- lack of knowledge of health care resources and how to access those resources;
- geographic inaccessibility;
- lack of transportation, especially in rural areas and where children or the disabled must be transported;
- lack of support services such as child care and respite for caregivers of sick family members;

- lack of cultural sensitivity or competence on the part of providers;
- clients being intimidated by the system, especially if there are language difficulties or there is a requirement for patients to complete paperwork;
- confusing or conflicting information;
- perceived racism, sexism, or homophobia;
- perceived confidentiality issues; and
- piecemeal services that require multiple visits to the provider.

An example of health disparity is the high HIV prevalence among the poor. Using several sociodemographic indicators, a 1990 study found that zip code areas in New York City with the highest number of hospital drug discharges and low birthweight births, both strongly associated with poverty, had the highest HIV prevalence. Another study compared areas of need for HIV services and found that zip code areas identified as being in highest need of HIV prevention and HIV-related medical services were far more likely to be areas with low median incomes.

Certain special populations present unique access issues which make them particularly vulnerable to poor health outcomes. Migrant and seasonal farmworkers, as just one example, have unique difficulties in accessing and sustaining their contact with the health care system. The average lifespan of a male migrant farmworker is 49 years, as opposed to 75 years for the rest of the male population. Medical problems in migrant farmworkers often reach very serious levels before health care is sought, and the migrant must often move on before care is completed. Because there is little continuity to their care, complications from poorly controlled acute and chronic conditions are very common in this group.

Interventions

Lack of access to quality primary health care is a multifaceted problem which must be addressed at the national, state, and local level.

Role of the Federal Government

Federal efforts to improve access to primary health care include funding for community and migrant health centers as well as

scholarship and loan repayment programs for health care providers, all targeted to federally designated shortage areas.

Role of State Government

New York State must remain committed to reducing access barriers and enhancing the quality of health care. The goal of universal access to comprehensive, high-quality, sustainable health care for all New Yorkers, beginning with children, is attainable and affordable.

In the interim, current efforts that should be retained or strengthened include:

- improving primary care services for the poor through quality Medicaid-managed care (Managed care has the potential to substantially improve access to care for Medicaid eligible patients. However, Medicaid managed care in itself will not eliminate all of the access and disparity issues that are facing New Yorkers.);
- state-subsidized insurance programs for the uninsured, such as Child Health Plus;
- primary care initiative grants to expand and improve primary care services;
- rural health network development grants;
- service-obligated scholarship and loan repayment programs to primary care practitioners who agree to practice in underserved areas;
- physician and dentist recruitment programs, including grants to increase minority recruitment into medicine and dentistry;
- technical assistance to underserved communities;
- fostering dental health education and promotion by expanding school-based health programs;
- eliminating administrative barriers for providers to increase the availability of dental services, especially school-based dental services.

Many underserved communities require continued support to develop service delivery networks including oral health services and to attract culturally competent health care providers. The Robert Wood Johnson Foundation-funded "Practice Sights" initiative is an example of helpful technical assistance; communities are assisted in accessing all available resources to support primary care development.

New York State must also maintain its commitment to the quality of health care available to New Yorkers. New York's goal should be that each individual receive preventive, primary, and treatment services that are age- and condition-appropriate, according to recognized standards of care.

Role of Local Communities

Localities have a role to play in addressing access issues, as well. Access issues are felt most acutely on the local level, and localities must invest in solving access problems. Local actions may include:

- systematic assessment of needs, resources to meet identified needs, gaps in services, and barriers to access, followed by locally appropriate solutions;
 - forming alliances with the medical community to include physicians, hospitals, insurers, dentists and dental hygienists, and other health care providers for delivering services;
 - initiation of services in underserved areas;
 - promotion of available services;
 - arraying or combining services to minimize duplication, travel, and complicated arrangements;
 - changing or expanding service hours;
 - installing toll-free numbers to facilitate appointment taking;
 - adding or arranging transportation and child care;
 - improving access for the handicapped;
 - offering incentives for participation;
 - developing local responses to the uninsured or inadequately insured;
 - developing cultural competence and second language skills in staff;
 - seeking culturally diverse staff;
- and finally, and perhaps most importantly,
- developing local networks that enable consumers to benefit from coordinated, multipronged local approaches to health and social issues that impact on health.

Public/private partnerships are essential to support availability of health services, educate the community about health resources, and remove barriers to care.

Examples of Multipronged Strategies for Increasing Access to and Delivery of Health Care

Business/Worksites

- Educate workers about the importance of preventive care.
- Consider access and quality of primary and preventive health care in selection of employee insurance plans.
- Enlist insurers in providing employees with adequate information and education on preventive care issues and when to access health care.
- Whenever possible, make insurance benefits available to all full- and part-time employees, either through the company or in communitywide plans, such as those sponsored by chambers of commerce.
- Ensure that part-time or lower paid employees have access to written information on Child Health Plus and other government-sponsored insurance plans for the uninsured and underinsured.
- Select insurers and managed care plans that include preventive services in their benefits, measure the extent to which they are delivered, inform enrollees of their status with regard to preventive services, provide services at convenient hours, and provide practitioners with administrative supports.

Colleges and Universities

- Prepare practitioners to take responsibility to ensure their patients receive the services they need to keep themselves and their communities healthy.
- Prepare practitioners who are able to implement appropriate preventive care recommendations. Shift the focus from hospital-based to community-based care.
- Disseminate research findings supportive of primary and preventive care.
- Assist local communities to design and implement evaluations of local public health interventions relating to access and availability of health care.

Community Based Organizations

- Link with health care organizations to establish effective referral mechanisms.
- Reinforce health messages that are important to the clientele or target group.
- Consider co-locating services or sharing services with health care providers.
- Provide feedback as to client expectations and experiences with health care.
- Share what is known about the community with health care providers and planners through serving on community boards and committees and by offering in-service and pre-service sessions for providers.
- Assist health care providers to meet the needs of diverse populations through sharing or helping to arrange translation, transportation, child care, or other services.

Government

- Work with legislators to expand health care coverage for preventive services for the uninsured and underinsured, beginning with children.
- Establish public/private process to develop and implement performance measures for managed care organizations to ensure the delivery of preventive and curative services essential to community health.
- Develop framework for collecting local information on the delivery of preventive and curative services essential to community health, and to identify barriers to access.
- Monitor compliance with standards of care for managed care organizations and other health care providers, assessing quality and comprehensiveness of care.
- Work with provider organizations to encourage practitioner availability in underserved areas.
- Work with communities that experience poor outcomes to determine the extent to which access issues are affecting those outcomes.
- Allow the localities flexibility in system design to decrease preadmission paperwork and other procedures that may be intimidating to potential clients.
- Consolidate funding streams to reduce redundancy and inconvenience for clients.
- Remove regulatory obstacles that create barriers to care.

Health Care Providers

- Ensure provision of preventive health and dental services.
- Collaborate and cooperate with local health departments, managed care organizations and other community entities to assess local needs, identify gaps in services, and generate local solutions.
- Locate services in underserved areas and promote availability of service to high-risk and underserved populations.
- Design services with the focus on customer satisfaction. Investigate what consumers feel is important and seek feedback from the community on improving services.
- Array services to minimize duplication, travel, and complicated arrangements.
- Make it simpler to obtain services and make facilities more welcoming.
- Consider offering school-based or school-linked health services.

Media

- Educate the public about the importance of having a “medical home” and the benefits of keeping up-to-date with their preventive care.
- Feature stories that highlight new and innovative services.
- Provide public service announcements about community health services.
- Assist health care providers to target the right market for their services.

Schools

- Collect and share information about access issues for the school-aged population and their families.
- Link with area health and human service providers to design a “one stop shopping” model.
- Open school buildings to evening presentations and activities sponsored by health care and recreational providers.
- Include information on appropriate utilization of primary and preventive health care in health education curricula.

Education

Objective

By the year 2000, increase the high school completion rate to at least 90 percent and maintain it at this level or higher through the year 2006 (baseline: 80.9%, NYSED, 1993-94).

Objective

By the year 2006, increase the percentage of persons without high school diplomas who earn the General Education Development (GED) credential to at least 1.4 percent (baseline: 1.2%, GED Statistical Report, 1995).

Rationale

Each individual plays a role in determining his or her own health status. Levels of both **general education** and specific **health education** are factors in personal health. When students are healthy, they can be more self-disciplined, they are absent less often, and they are less likely to drop out of school.

High school graduation may be used as a measurement of general educational attainment. It is presumed that high school graduates have mastered basic literacy and mathematical skills. High school graduation, either by traditional means or through GED, confers a credential that allows for wider job opportunities, thus enhancing social and economic status. Because high school graduation in New York State requires successful completion of a health education course, it may be inferred that graduates have been taught basic health concepts, including information about HIV/AIDS, tobacco, alcohol, and other drugs.

Size of the Problem

Educational Level and Health

Lack of an adequate *general* education is widely recognized as a factor in health, determining how and where people live, and the quality of their lives. Low educational attainment influences occupational choices, income, and the quality of family life. A child's readiness to start school influences ultimate educational attainment.

Lack of education is linked to several measures of family health and child well-

being. Maternal education is associated with higher use of health services, and educated parents bring greater knowledge and skills to their roles as parents. They tend to interact better with their children, and have more options available to them in parenting. Their children also tend to have more appropriate behaviors and are likelier to attain an education. Lack of maternal education is correlated with mothers having more fatalistic views of their child's health, and taking fewer precautions to safeguard their children's health, and with higher infant mortality.

Health behaviors of adults are also linked to their level of education. For many years, there has been an inverse association between education and cardiovascular disease rates and associated mortality rates. Between 1974 and 1985, smoking declined in higher educated groups at five times the rate than among the less educated.

Dropping Out

Unfortunately, many of New York's students do not complete high school. The National Center for Education Statistics reports that, based on the 1990 Census, 10.1 percent of New Yorkers aged 16-19 were not enrolled in school and had not graduated from high school. This was slightly lower than the national percentage of 11.2 percent. Within the state, the percentages varied from 5.2 percent in Nassau County to 18.0 percent in the Bronx.

Dropping out of school is highly correlated with living in single-parent families (especially those headed by single women), poor parental academic skills, poor attendance, working more than 14 hours a week during

the school year, and adolescent pregnancy. A 1990 study asked a sample of students who dropped out of school between 1988 and 1990 their reasons for leaving school. School-related, rather than family- or job-related reasons, were reported most often.

The majority (60.0%) reported that they dropped out because they did not like school. Many reported that they could not get along with their teachers (30.2%), were failing (28.1%), enrolled in a new school they did not like (24.0%), could not get along with other students (22.8%), or did not feel safe at school (21.8%). Other reasons cited were having to get a job (29.1%), becoming a parent (19.1%), and being pregnant (17.4%).

Dropout rates for public high schools appears to be directly related to poverty status and minority composition of schools. Data from the New York State Education Department for the 1993-94 school year show drop out rates to be highest in high minority, high poverty schools. Minority composition is defined as follows: low = 0-20 percent minority enrollment, medium = 21-80 percent, and high = 81-100 percent.

According to the State Education Department, schools with the highest percentages of minority children, who are frequently also poor, have less experienced teachers, more

uncertified teachers, and higher rates of teacher turnover than do schools with fewer minority students. Students in these schools also experience a higher number of school transfers, are more likely to be on public assistance, and are more likely to score poorly on Pupil Evaluation Program (PEP) tests and the Regents comprehensive English examinations. Students in schools with poorer attendance also scored worse on the PEP tests than students in schools with better attendance.

The State Education Department reports that a 90 percent high school completion rate is probably realistic and achievable. The 10 percent who will not graduate also include those who are incarcerated, those who are mentally retarded and those whose mental illness precludes high school completion.

Interventions

When communities support school readiness, literacy, drop-out prevention, and other programs that support education, they also invest in health. Education is an investment, not a quick fix, and has long-term benefits for the individual and community. A good general education puts health information and education into meaningful context for the individual's lifetime.

School readiness is a complex (and somewhat subjective) measure of whether or not a child has the maturity and stamina to benefit fully from the school experience. Measurements of readiness, though not consistent from school district to school district, usually include:

- achievement of age-appropriate developmental skills;
- detection and remediation of any hearing and visual problems the child is experiencing;
- age-appropriate speech and vocabulary;
- the ability to maintain attention; and
- having all required immunizations and screenings.

School readiness, then, is a direct result of a healthy and nurturing early childhood and supportive actions on the part of the child's parents and first teachers.

Communities need assistance with ensuring that children come to school ready to learn. A healthy diet, adequate and undisturbed sleep,

Dropout Rates, Minority Composition and Poverty Status of School

New York State, 1994

Minority Composition and Poverty Status of School	Number of Dropouts	Average Annual Dropout Rate
Low Poverty		
Low Minority	5,756	2.0%
Medium Minority	2,347	2.4
High Minority	104	3.0
Total	8,207	2.1
Medium Poverty		
Low Minority	1,467	3.2
Medium Minority	3,362	4.1
High Minority	2,445	4.0
Total	7,274	3.8
High Poverty		
Low Minority	257	2.7
Medium Minority	1,192	4.9
High Minority	12,814	9.4
Total	14,263	8.4

and support for early learning are essential ingredients for normal, healthy childhood. Yet, not all of New York's school children are coming to school well nourished, rested, and otherwise ready for a day of learning. These qualities require a degree of family organization and stability that is not present in all families. Where lack of family resources is an impediment, referrals to the school breakfast and the free or reduced cost lunch programs and other social programs may be necessary to achieve the desired results. Human services organizations working closely with schools have the potential to improve the capacity of children to learn, provided they are attuned to these needs and able to reinforce consistent messages about the parental role and responsibility for the learning environment.

Health education is a key strategy for achieving our other health objectives by helping people maintain their health, through establishing and maintaining healthy lifestyles and through appropriate use of health care services. Health education in the broadest sense encompasses:

- communitywide campaigns or media messages regarding positive lifestyle changes;
- education regarding lifeskills, teaching communication, decision-making, flexibility, social support, anger management, and conflict resolution;
- family life education, including child development, parenting, sexuality, and family relationships; and
- targeted group or individual counseling around a particular topic or a particular set of health needs.

Graduation from a New York State high school includes the successful completion of a course in health education. State Education Department standards call for sequential age-appropriate instruction in all grades from kindergarten through grade six, a half-unit of instruction in middle school and another half-unit of instruction at the senior high level. Courses must include information on HIV/AIDS, alcohol, tobacco and other drugs. At the secondary school level, the courses must be taught by a certified health education teacher. Children must attend all courses unless the parents exercise their "opt out" option for sexuality education and the prevention portion of the HIV/AIDS instruction only. Religious exemptions for members of religious

groups are also provided. Targeting children, preteens and adolescents as they are developing many of their lifestyle choices is critical to a healthier tomorrow.

The Comprehensive School Health and Wellness model provides a structure and a process to support health-related knowledge, skills, values, and practices. This model expands traditional elements of school health to include a broader range of community and school resources. The eight components of the program are:

- healthy school environment;
- health education;
- health services;
- physical activity education;
- pupil services addressing psychological and emotional needs;
- school nutrition services;
- staff wellness programs; and
- parent and community involvement.

Although there is no mandate to implement the Comprehensive School Health and Wellness program, the State Education Department encourages both training in and implementation of this model. To date, 396 teams from across the state have taken advantage of Comprehensive School Health and Wellness training.

Health education is not the sole responsibility of schools. To be effective, health education messages must be reinforced by the whole community, especially by families. Most health education efforts that fail do so because they do not address the social context. Skills and knowledge are reinforced when there is continuity between what children learn at school and what they see at home and in the community. Parents and other role models must know what children are learning at school and understand their role in reinforcing healthy lifestyles.

Adults, also, can benefit from education that reduces their personal risks of adverse health outcomes. Each community can develop ways to disseminate and reinforce health messages that will have a direct effect on adult health, will motivate adults to make positive lifestyle changes, and will support the role adults play in modeling healthy lifestyle choices for future generations. Employers, churches, civic organizations and food service establishments can all play roles in health education.

Examples of Multipronged Strategies that Support Education in the Community

Business/Worksites

- Develop technologies that can be used to enhance/improve general education or health education.
- Provide work-study or school-to-work opportunities for students interested in business careers or for parents who are returning to the workforce.
- Enhance direct assistance to schools. “Adopt” a school building and encourage employees to volunteer there or provide other assistance. Sponsor a community service day and complete a school-related project.
- Provide a flexible workday for parents to attend school conferences or volunteer in the classroom.
- Recognize that the workplace is often an important source of information, including health information, especially for young adults. Capitalize on opportunities to link with health and human services providers and bring community resources and health promotion information into the workplace.

Colleges and Universities

- Enhance direct assistance to schools, including on-site technical assistance.
- Prepare teachers and administrators with drop-out prevention skills and strategies.
- Provide leadership in research and evaluation of general education, school retention strategies, and health education programs.
- Prepare teachers to make connections between health education and other academic departments and curricula, and to appropriately involve and utilize community resources outside of the school.

Community Based Organizations

- Help parents understand the importance of an education and the importance of a child arriving at school ready to learn. Reinforce parental skills and responsibility for ensuring adequate nourishment, rest, and readiness for school.
- Encourage GED completion by establishing a program for the agency’s clients.
- Empower parents to change their environment to support school achievement.
- Provide after-school programs that help children with homework.
- Enhance computer availability for poor children.
- Establish linkages with schools. Coordinate existing service programs with schools.
- Establish “one stop shopping” human service models onsite in schools.
- Offer to provide inservice education for teachers and other staff.
- Serve as an important source of health education for the community.

Government

- Provide needed technical assistance and curricular support.
- Foster linkages between schools and other human service agencies. Remove categorical barriers that discourage comprehensive approaches to families.
- Encourage schools to provide comprehensive health programs.

Health Care Providers

- Include developmental assessment and counseling in all interactions with families.
- Discuss school readiness with all parents of preschoolers and help parents create nurturing environments.
- Network with schools. Share health information about the school population. Plan to address health problems collaboratively.
- Provide staff development for schools on topics related to health.
- Establish school-based or school-linked services where appropriate.
- Provide “guest presentations” to health education classes.
- Establish Explorer-type clubs to interest students in health care careers.
- Incorporate health education as part of the clinical process (such as reduce smoking, decrease fat in diet, and increase physical activity).

Media

- Clarify educational and health issues for the community. Help keep educational topics in the public’s consciousness.
- Provide articles on education and school readiness. Focus on and reinforce basic needs of children and how they must be met in order to ensure academic success. Help parents with concrete, no- or low-cost suggestions to enrich the home environment to support early learning and school readiness.
- Help to promote the GED in the community.
- Feature graduates and success stories, and emphasize the support necessary to achieve success.
- Provide public service announcements on health-related issues.

Schools

- Encourage meaningful parental involvement in education.
- Examine local drop-out prevention strategies and target resources appropriately.
- Award excellence in teaching. Recognize teachers that “go the extra mile” to keep students interested and engaged in school.
- Provide content that addresses educational needs and health needs, interest and strengths of culturally diverse populations in the community.
- Provide adequate support and emphasis on health in schools.
- Initiate a comprehensive health and wellness model in each building in the district.
- Ensure credentialed teachers and state-of-the-art knowledge of health topics.
- Connect health education to other subject matter and across the various academic departments.
- Welcome connections with agencies and providers outside of the school. Share assessments. Initiate collaborative planning.

Objective

By the year 2006, reduce the percent of all births that are low birthweight (< 2,500 grams) to no more than 5.5 percent and very low birthweight (< 1,500 grams) to no more than 1.0 percent (baseline: 7.7% < 2,500 grams, 1.5% < 1,500 grams, VS, 1994).

Rationale

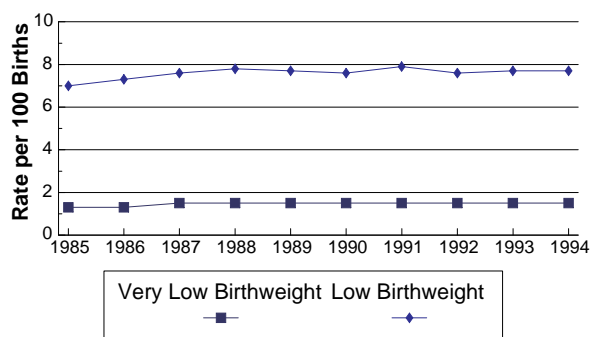
Promoting the health of mothers and infants remains a central mission of public health. Infant mortality (death within the first year of life) is one of the most widely used markers of the health status of a population. The United States infant mortality rate is higher than that of most other industrialized nations; the New York State rate is higher than the national rate. A major reason for New York State's high infant mortality is our high rate of low birthweight births. Low birthweight is the strongest risk factor for infant mortality. Advances in high technology neonatal care allow an increasing number of low and very low birthweight infants to survive; New York State hospitals are very successful in caring for these tiny infants. However, this medical solution to infant mortality is far from ideal. It is extremely costly in human and financial terms; among very low birthweight infants who survive, many suffer life-long disabilities such as cerebral palsy; and neonatal intensive care is among the most expensive aspects of medical care. Moreover, our current infant mortality rate (IMR) demonstrates that the medical solutions cannot compensate for the failures of prevention. Promoting healthier birth outcomes is the key to progress in reducing infant morbidity and mortality.

Size of the Problem

In 1994, 7.7 percent of all infants in New York State were low birthweight (<2,500 grams), and 1.5 percent were very low birthweight (<1,500 grams). These percentages have changed very little over the past 10 years. The state's 1994 overall infant mortality rate was 7.7 deaths per 1,000 live births, and the neonatal mortality rate (reflecting deaths in the first 28 days of life) was 5.2 per 1,000 as shown by 1993 SPARCS data, low birthweight

Very Low (<1,500 grams) and Low (<2,500 grams) Birthweight

New York State, 1985-94



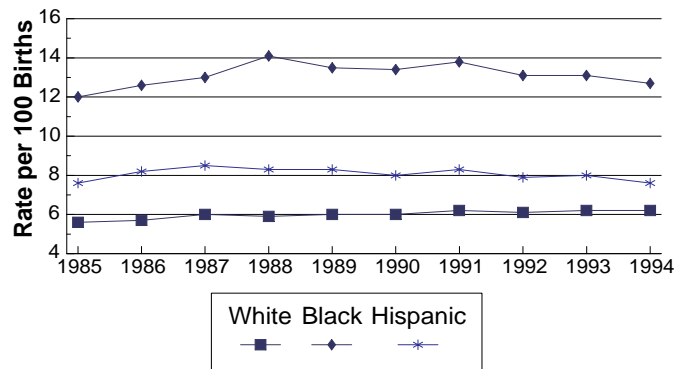
is highly associated with neonatal mortality. Among normal birthweight infants (>2,500 grams), the neonatal mortality rate was only 1.2 per 1,000 live births; among moderately low birthweight infants (1,500-2,500 grams), the rate was 11.6 deaths per 1,000; and among very low birthweight infants (<1,500 grams), there were 252 deaths per 1,000 live births.

Disparities

Rates of low birthweight and infant mortality are higher among minority infants. Among blacks, the 1994 rate of low birthweight births (<2,500 grams) was 12.7 percent, and 3.0 percent of infants were very low birthweight (<1,500 grams). In the past decade, the differences in low birthweight rates by race/ethnicity have changed very little. The infant mortality rate among blacks was 13.9 deaths per 1,000 live births. Small-area analysis reveals wide disparities among areas of the state. Some localities have IMRs below 5 deaths per 1,000 births – as low as the IMR in Japan and the Scandinavian countries. Other areas, however, particularly inner-city neighborhoods in New York City, Buffalo, Rochester, and Syracuse, have IMRs of more

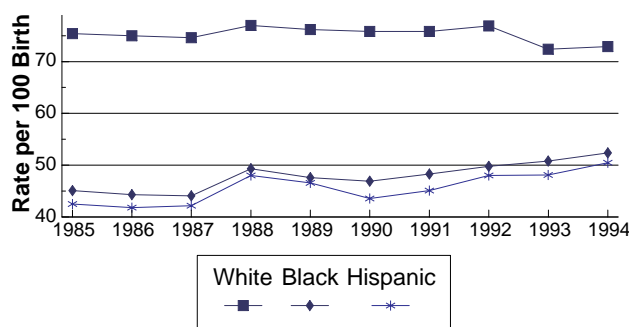
Low (<2,500 grams) Birthweight by Race/Ethnicity

New York State, 1985-94



Early (First Trimester) Prenatal Care by Race/Ethnicity

New York State Residents, 1985-94



1994 data are provisional.

than 20 per 1,000 live births, comparable to those in far less developed nations.

These disparities are related to substantial differences among population subgroups in access to care and in health behaviors. During 1994, just over 50 percent of pregnant black and Hispanic women received prenatal care in their first trimester, compared to nearly three quarters of pregnant white women. Some health behaviors are determined by norms in the social environment. For example, low income, minority women are less likely to receive timely and adequate prenatal care, are more likely to use tobacco and other harmful substances during pregnancy, and are less likely to breastfeed their infants.

Health Implications

Inadequate prenatal care, poor nutrition, tobacco and substance abuse, and other negative health behaviors in pregnancy are

associated with an elevated risk of low birthweight. In addition, substance abuse leads to increased risk of HIV infection, which is not only life-threatening for the mother and can be passed from mother to infant. Breastfeeding, a positive health behavior, provides ideal nutrition for infants. It also provides protection against infections, allergic conditions, and other common childhood illnesses, and it promotes healthy development for the infant and the family. Epidemiologic data also indicate that breastfeeding protects children in later childhood against such devastating diseases as lymphoma and inflammatory bowel disease.

The most significant health consequence of low birthweight, as already discussed, is that it greatly increases the risk of death within the first year of life, due to immaturity of the lungs, bleeding into the brain, and other complications of prematurity. Low and very low birthweight infants who survive often have serious long-term health problems, including cerebral palsy and chronic lung disease, requiring ongoing medical care.

Interventions

Improving the health of mothers and infants will require intervention on several levels:

- prevention of high-risk pregnancies through family planning and preconceptional care;
- promotion of healthy pregnancies through early, comprehensive prenatal care;
- access to risk-appropriate care before, during, and after birth for mother and infant; and
- health promotion through access to comprehensive pediatric care and breastfeeding.

Preventing High-Risk Pregnancies

A recent Institute of Medicine report titled *The Best Intentions* called national attention to the consequences of unintended pregnancy; a major consequence is poor pregnancy outcome. Family planning is not often thought of as a strategy for improving pregnancy outcomes, but, in fact, it plays a vital role by helping to prevent unwanted and ill-timed pregnancies. Preconceptional (or interconceptional) care can identify women at particularly high risk for poor pregnancy

outcome (for example, women with a history of prior premature births) and can help prevent subsequent poor outcomes through family planning and/or improving the woman's own health and nutritional status.

Promoting Healthy Pregnancies

Comprehensive prenatal care that addresses all aspects of a woman's health during pregnancy has a beneficial impact on low birthweight and other pregnancy outcomes. In addition to medical care, prenatal care visits provide an opportunity for health education and counseling on nutrition, domestic violence, tobacco use, drug use, HIV/AIDS, and identification of women whose risks are higher than average. Women can be linked with the Special Supplemental Food Program for Women, Infants and Children (WIC) and other appropriate services. To prevent transmission of HIV to their infants, women found to be HIV positive can be offered zidovudine (AZT) therapy and should be counseled against breastfeeding. These enriched aspects of comprehensive prenatal care are especially important in improving birth outcomes. To ensure that women receive adequate prenatal care, strategies that reduce barriers to care and promote early entry into care include aggressive outreach, expanded Medicaid eligibility, simplified Medicaid enrollment procedures, and increasing the number of geographically and culturally accessible prenatal care providers.

Ensuring Risk-Appropriate Care

Primary preventive measures will reduce, but not eliminate, the incidence of preterm labor, low birthweight, and other perinatal and neonatal complications. Prompt recognition of complications and provision of appropriate care are key to ensuring positive outcomes in high-risk situations. High-risk care includes interventions to arrest preterm labor,

treatment of maternal complications, and neonatal intensive care services. To ensure that women and infants receive the appropriate level of care, it is essential that prenatal care providers have affiliations with hospitals and that community hospitals have affiliations with more sophisticated medical centers. Affiliation agreements should specify criteria for transferring patients to a higher level of care and should address quality assurance.

Promoting Healthy Infancy

New York's goal should be to have comprehensive prenatal care received by every pregnant woman in New York State and perinatal and well-baby care received by every child in New York State. Comprehensive pediatric care, a key strategy for promoting infant health, includes primary and preventive medical care, such as health assessments and immunizations. It also provides an opportunity for monitoring the infant's development and for providing parents with anticipatory guidance and education about infant care and feeding. Linkage with services such as WIC will improve the infant's development.

Breastfeeding is one of the simplest, most cost-effective ways to promote good health during infancy. Education during prenatal care can promote breastfeeding by dispelling myths and misconceptions. Hospital policies and practices can support successful initiation of breastfeeding by promoting rooming-in, by avoiding use of bottles and pacifiers with breastfed babies, and by ensuring that staff have time and expertise to assess and provide guidance and support to breastfeeding mothers. Following hospital discharge, primary care providers, paraprofessionals, and community groups can provide support to promote long-term breastfeeding success.

Examples of Multipronged Strategies for Healthier Births

Business/Worksites

- Establish family-friendly policies, including maternity leave, part-time work opportunities, facilities for breastfeeding employees/clients.
- Provide health insurance coverage for employees and their families that includes coverage for preventive services, such as family planning and well-child care.
- Offer smoking cessation and other wellness programs for employees.

Colleges and Universities

- Research individual and community factors influencing birth outcomes.
- Develop and test new interventions to prevent preterm birth, low birthweight, mother-to-child HIV transmission, and other adverse outcomes.
- Present continuing education conferences on strategies to promote healthy outcomes, such as breastfeeding management and the use of AZT in pregnancy.

Community Based Organizations

- Encourage family planning and early and continued prenatal and pediatric care through outreach to high-risk women and families.
- Promote family planning, healthy behaviors during pregnancy, and well- baby care through public education campaigns.
- Provide prenatal and parenting education classes.
- Offer smoking cessation programs targeting pregnant women and women of childbearing age.

Government

- Expand insurance coverage for family planning, prenatal, and infant care.
- Provide outreach and public education about family planning, prenatal, and well-child care.
- Develop standards for comprehensive prenatal care and family planning services.
- Provide surveillance/feedback to health care providers on rates of low birthweight, infant mortality, prenatal care utilization, and breastfeeding.
- Develop incentives for providers to practice in underserved areas.
- Coordinate services among government agencies.

Health Care Providers

- Initiate proactive discussion of family planning and preconceptional care with women of childbearing age.
- Provide comprehensive prenatal care, including assessment and care/referral for medical and non-medical risk factors (nutrition, tobacco, alcohol and substance abuse, domestic violence, HIV).
- Provide home visiting for women in need of intensive follow-up.
- Develop drug treatment programs geared toward pregnant women and women of childbearing age.
- Provide comprehensive pediatric care.
- Reach out to women of childbearing age to ensure they know about the risks to pregnancy and the importance of enrolling in prenatal care.

Media

- Highlight articles on: (1) the link between unintended pregnancy and poor birth outcomes; (2) the importance of prenatal care and well-baby care; (3) positive and negative health behaviors during pregnancy.
- Provide public service announcements and pro-bono advertising.
- Include portrayals of pregnant and childbearing-age women engaged in positive health behaviors in non-news programming.

Schools

- Provide comprehensive sexuality education that addresses postponing sexual involvement, family planning, and the importance of prenatal care.
- Promote positive health behaviors through school health curricula, anti-tobacco policies, and role models.

For additional related information, refer to the chapters on access to health care, nutrition, sexual activity, substance abuse, tobacco, and violence.

Mental Health

Objective

By the year 2006, reduce the rate of hospitalizations due to self-inflicted (intentional) injuries among persons aged 10 years and older to no more than 50 per 100,000 persons (baseline: 62.5 per 100,000, SPARCS, 1991-93).

Rationale

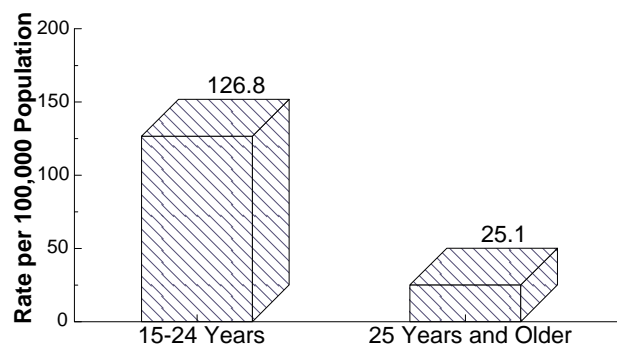
Enhancing the mental health status of communities is, by itself, an important goal. Its significance is magnified by the fact that the mental and physical health of communities are inexorably entwined. It is widely recognized that the initiation or continuation of many physical health risk behaviors is often related to the emotional and mental health of an individual and his or her social group. Such behaviors as alcohol and substance abuse, risky sexual activity, eating disorders, and violence often occur within the context of mental health concerns. If the overarching goal of building healthier communities within New York State is to be achieved, the attitudinal and behavioral norms of a community and the mental and emotional health needs of individuals must be adequately addressed.

Size of the Problem

Mental health issues are manifested across the entire spectrum of priority public health challenges. Personal characteristics or experiences such as low self-esteem, concerns about social acceptance, the absence of

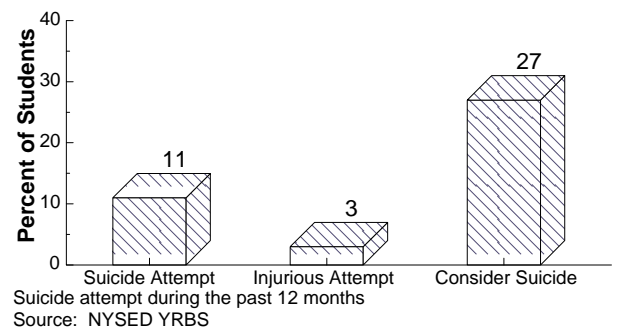
Self-inflicted Injury Hospitalization Rate by Age

New York State, 1991-93



Suicide Attempts in High School Students

New York State (excluding New York City), 1993



strong family structure and support, early exposure to violence and abuse, compulsive behavior, and fatalism are often associated with a wide range of risk behaviors and adverse health outcomes. One of the extreme manifestations of poor mental/emotional health is intentional self-inflicted injury, including suicide. Suicide is the leading cause of injury-related death among New Yorkers 45 years of age and older. It is the third leading cause of death among 15 to 24 year olds. Suicide attempts are often associated with episodic clinical depression. Beverage alcohol consumption can heighten the risk of suicide for some, based on its depressant and disinhibitant effects.

Although not limited to adolescents and young adults, self-inflicted injury is five times more common among 15 to 24 year old New Yorkers compared to their older counterparts. Almost 9,000 New Yorkers require hospitalization each year as a result of intentional self-inflicted injuries. In a 1993 survey of high school students in the state (outside of New York City), more than one in four reported having considered (thought seriously) about attempting suicide, with approximately one in 10 reporting having actually attempted to kill themselves.

Approximately 25 percent of them required medical attention as a result of their attempt.

With such a high prevalence of suicidal ideation among youngsters, it is perhaps understandable why public health messages which address potential long term health consequences of risk behaviors, such as tobacco use, have limited impact on many young people. A mindset which does not assume a long lifetime is not likely to place a premium on healthy behaviors which offer a deferred benefit.

Interventions

The first step in any successful intervention is for community leaders to recognize that the mental health status of individuals within the community is an essential aspect of the overall health of its citizens, that health risk attitudes and behaviors are often adversely affected by mental illness and that a community-wide response to community mental health issues is warranted. Another fundamental step is to ensure that providers of mental health services participate actively and fully in a community's overall health planning activities and its health care service delivery structure. If community public health and community mental health interventions are developed and carried out in a coordinated and integrated fashion, many of the public health objectives of a community will be more attainable.

Coordination between the public health and mental health sectors could include:

- developing complementary strategies to link healthy behavior decision-making

educational efforts in school settings with more intensive interventions directed at children, and their families, who are at an early stage of an unhealthy lifestyle (Most school-age children receive messages concerning the health risks of certain behaviors. It is equally important that follow-up psychosocial interventions be initiated for those youngsters at increased risk for or already engaging in these activities.);

- linking mental health services to the provision of health and human services for senior citizens; depression and suicide are important elder health issues which should be addressed in a comprehensive manner;
- working together to more fully address, within the clinic setting, an individual's health risk behaviors from both the mental health and physical health perspectives. (Community mental health specialists can add an important dimension to services provided in STD/HIV clinics, prenatal care clinics, and other "public health" settings.);
- identifying the mental health resources that exist within the community and making those resources widely known. Also, if a community is identified as being underserved, incentive programs that are available to encourage mental health professionals to locate in such areas can be pursued.

A broad-based mental health strategy can have a far-reaching impact throughout a community. An important sentinel indicator of a community's overall mental health status that can be monitored is its hospitalization rate due to intentional, self-inflicted injuries.

Examples of Multipronged Strategies for Improving the Mental Health of New Yorkers

Business/Worksites

- Provide a flexible work environment to help reduce job/family conflicts and other sources of stress.
- Provide opportunity for physical activities to reduce stress.
- Encourage opportunities for employees to receive confidential mental health screening and counseling in a nonthreatening environment.
- Educate employees regarding the relationship of alcohol and drug abuse and other behaviors to mental health problems.
- Offer mental health service coverage in health insurance policies.

Colleges and Universities

- Research and evaluate specific measures to prevent suicide.
- Research the causes of depression, anxiety, and other forms of mental illness.
- Develop measures of assessing “emotional health” and mental health conditions such as depression and anxiety in the population.

Community-Based Organizations

- Provide information to members of the community regarding mental health resources available in the area.
- Working together with businesses and health care organizations, implement confidential emergency mental health assistance, such as a suicide emergency hotline.
- Reduce social isolation as a risk factor for suicide among the elderly by developing more senior day-care centers, senior citizen centers, and other recreational and social activities.

Government

- Provide incentives to encourage mental health specialists to locate in underserved areas.
- Collect population-based indicators of mental health in the community.
- Link the private medical sector to supportive services offered by community-based organizations and public health agencies.

Health Care Providers

- Integrate mental health services with other health care services provided in STD/HIV clinics, prenatal care clinics, and other “public health” settings.
- Implement and evaluate protocols to improve the identification and treatment of people who attempt suicide and have treatable mental health problems, such as depression.

Media

- Portray victims of mental health problems in a more compassionate light.
- Provide public service information on signs of mental health problems and available resources.

Schools

- Incorporate self-esteem building and conflict resolution training in health education curricula.
- Offer activities designed to build students’ self-esteem.
- Train staff to recognize early signs of mental health problems, including exposure to violence and abuse, drug and alcohol abuse, compulsive behaviors, lack of family support, and social isolation.
- Provide referrals to mental health specialists, when appropriate.

Objective

By the year 2006, reduce the prevalence of overweight to no more than:

- 20 percent among adults 18 years of age and older (baseline: 27%, BRFSS, 1994);
- 15 percent of second and fifth grade school children (baseline: 34.5% NYC, 27.9% Rest of State; NYSDOH Nutrition Survey, 1990).

Rationale

Being overweight is strongly associated with several chronic diseases and debilitating conditions. Together with physical inactivity, inappropriate diet accounts for the second largest cause of preventable death in New Yorkers. The prevalence of high blood pressure is at least twice as great in overweight than in nonoverweight adults. The chance of developing noninsulin-dependent diabetes more than doubles with every 20 percent excess in body weight. Among overweight adults, 38 percent of women and 32 percent of men have high blood cholesterol compared to 25 percent and 22 percent among nonoverweight men and women, respectively. A weight gain of 22-44 extra pounds during adulthood may increase the risk of coronary heart disease by 60 percent. Overweight also increases the risk of gallbladder disease, gout, some types of cancer, sleep apnea and some forms of osteoarthritis. Based on conservative estimates, the direct and indirect annual health and economic cost of obesity in 1986 was \$39.3 billion, representing 5.5 percent of all the costs of illness. In addition, Americans spend \$33 billion a year on weight loss products and programs.

In addition to overweight, a number of other nutrition-related factors are associated with a higher risk of poor health. A high intake of fat, particularly saturated fat, is a strong risk factor for elevated cholesterol. Reducing dietary fat to the recommended 30 percent of calories could reduce coronary heart disease mortality by 5-20 percent. It has been estimated that 35 percent of all cancers are

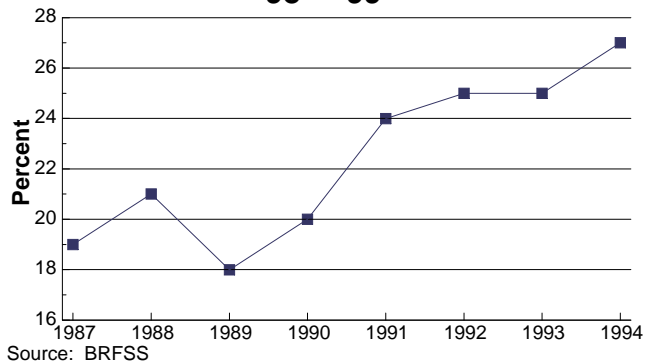
related to dietary factors. People with low fruit and vegetable intakes have twice the risk of many types of cancer as do people eating at least the recommended level of five servings per day. A nutritious diet is also important for a healthy pregnancy and for improving health outcomes, survival, and quality of life for people with chronic illnesses, such as AIDS.

Size of the Problem

Nationally, and in New York State, overweight is a widespread problem among nearly all segments of the population, and the prevalence has increased dramatically in recent years. Currently, 33 percent of all US adults are overweight. This represents a 30 percent increase in prevalence in one decade. Self-reported data from a survey of New York State adults revealed a 42 percent increase in the prevalence of overweight, from 19 percent in 1987 to 27 percent in 1994.¹

Prevalence of Overweight Among Adults Aged 18 and Older

New York State, 1987-94

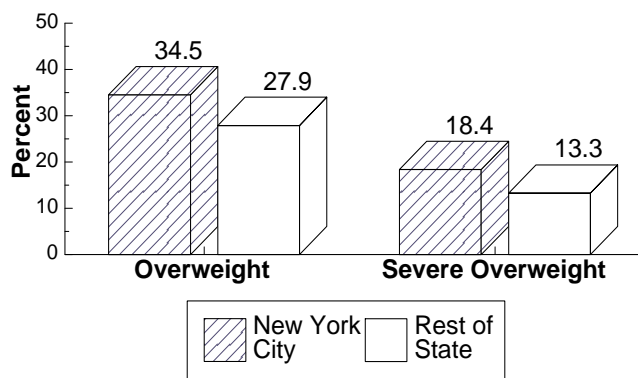


¹ National data were collected using actual measurements of height and weight. The New York State data are based on people self-reporting their heights and weights. Such self-reported information usually underestimates the true prevalence of overweight. Thus, the actual rate of overweight among New York State adults is likely to be somewhat higher, closer to the national rates. In the New York State survey, a person was considered overweight if the body mass index, defined as weight (kg)/height (m)², exceeded the 85th percentile for the United States population.

Preventing overweight in adults requires addressing the problem in children, because overweight children have a higher risk of becoming overweight adults. National data have shown an alarming increase in overweight among school-aged children (defined as weight for height above the 85th percentile of a national reference population), from 15 percent in the early 1960s to 22 percent in 1990. A 1990 survey of second and fifth grade children in New York State found that 34 percent of school children in New York City and 28 percent of children in the rest of the state were overweight. The rate was highest among Hispanic children. Data from 1994 indicate that 10.7 percent of low-income preschool children participating

Prevalence of Overweight and Severe Overweight Among School Children in Second and Fifth Grade

New York State, 1990



Source: NYSDOH Division of Nutrition

in the WIC Program are severely overweight (defined as weight for height greater than the 95th percentile of a national reference population) compared with 9.9 percent for all WIC children in the nation. Again, overweight seems to be most prevalent among Hispanic preschoolers.

In addition to a high prevalence of overweight, Americans (including New Yorkers) have a high rate of other diet-related problems. Only about one-fifth of Americans have achieved the recommendation of less than 30 percent of calories from fat. Data from New York State show similar results – approximately 80 percent of adults are still consuming too much fat in their diets. On the national level, only 23 percent of the adult population meet the recommendation of five or more servings of produce per day. In 1994, only 20 percent of New Yorkers met this

recommendation. More than 84 percent of children and adolescents consume too much fat (more than 30% of their daily caloric intake), and more than 79 percent of children and adolescents eat less than five servings of fruits and vegetables a day. While the proportion of adults with elevated cholesterol levels has declined in recent years, approximately 29 percent of adults, or more than 3 million New Yorkers, still have elevated levels and could benefit from dietary changes.

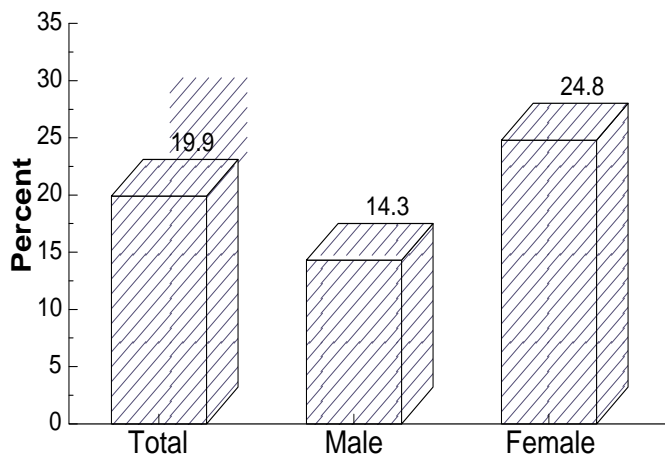
Interventions

Dietary habits are learned early in life and are strongly influenced by our social environment. Overweight has proven to be a particularly difficult condition to treat successfully. While a majority of overweight adults report that they are trying to lose weight, few are able to successfully maintain weight loss over a long period of time. Public health efforts to improve health status through nutrition, therefore, should incorporate the following principles:

- Increase emphasis on improving overall eating and activity patterns, and decrease emphasis on weight itself as an individual outcome. Focusing on weight encourages people to lose weight by any means possible and the methods of weight loss chosen are often unhealthy (fad diets, diet pills, skipping meals, purging, etc.). In addition, improving overall eating patterns can have a broader health impact through reductions in the risk of heart disease, some forms of cancer, osteoporosis, and other chronic conditions. Vigorous efforts should be made to encourage eating habits consistent with the *Dietary Guidelines for Americans*, produced jointly by the United States Departments of Agriculture and Health and Human Services, specifically by increasing the consumption of fruits, vegetables, whole grains, and low-fat calcium sources, and decreasing the consumption of fat and saturated fat.
- Increase emphasis on the prevention of overweight, especially in children, and the maintenance of a healthy weight by stressing overall good eating and physical activity habits early in life.
- Develop partnerships with the food industry and other key groups to promote healthier food choices. In response to increasing

Consumption of Five or More Servings of Fruits and Vegetables Daily Among Adults

New York State, 1994



Source: BRFSS

scientific information about the importance of fruits and vegetables in cancer prevention, the National Cancer Institute has joined forces with the produce industry in creating the national *Five A Day* campaign, an intensive, multiyear effort to increase produce consumption. Related initiatives should be encouraged at the state and local level.

- Implement environmental and policy initiatives that make it easier for people to eat better and be more active. For example, improvements in the nutritional quality of school meals and enhancements in the physical education and health curricula of third to fifth graders can result in significant reductions in the amount of fat in the diets of participating children as well as increases in the amount of daily vigorous activity.

Communities can help residents achieve a healthier diet through a variety of initiatives such as:

- ensuring that healthy foods are served in government subsidized food programs;

- working with schools, grocers, workplace cafeterias, and restaurant owners to promote healthier food choices;
- expanding the availability of farmer's markets;
- ensuring that nutrition messages delivered in different community settings are consistent; and
- working with schools and other youth organizations to incorporate healthier school lunch programs and a sound nutrition curriculum in all grades that teach children the skills they need to select and prepare healthier foods. Creating such a "health friendly" environment will make it easier for New Yorkers to be able to make and sustain changes in their eating habits that are consistent with good health.

Dietary Guidelines for Americans

- Eat a variety of foods.
- Balance the food you eat with physical activity; maintain or improve your weight.
- Choose a diet with plenty of grain products, vegetables, and fruits.
- Choose a diet low in fat, saturated fat, and cholesterol.
- Choose a diet moderate in sugars.
- Choose a diet moderate in salt and sodium.
- If you drink alcoholic beverages, do so in moderation.

Examples of Multipronged Strategies for Improving Nutritional Status of New Yorkers

Business/Worksites

- Create worksites that support a healthy diet and increased physical activity, for example: healthy food choices in cafeterias, vending machines, and surrounding restaurants; policies regarding availability of healthy food choices at meetings and other work-related functions; availability of farmers' markets on site.
- Provide economic incentives to employees for improvements in eating and activity habits.
- Collaborate with schools and community-based organizations on promotion of healthy eating and activity habits.

Colleges and Universities

- Investigate and promote effective strategies for improving dietary habits, particularly among vulnerable populations.
- Develop and validate simple methods for community-based programs to determine effectiveness of nutrition interventions.
- Provide continuing education opportunities on nutrition to the wide variety of health professionals who deal with changing dietary habits.

Community-Based Organizations

- Help to make healthy eating and activity the social norm by promoting culturally appropriate healthier food choices and physical activity at organizational and community functions.
- Incorporate consistent nutrition messages into community-based activities.

Food Industry (producers, manufacturers, distributors)

- Increase the availability of good-tasting foods that meet current dietary recommendations.
- Participate in helping the public attain desirable eating patterns through culturally appropriate nutrition labeling, advertising, and promotional activities.

Government

- Establish valid, consistent nutrition standards and nutrition messages across all government-funded food and nutrition programs.
- Ensure access to a healthy diet for vulnerable populations through continued support for food and nutrition programs.
- Develop national strategies for public education and promotion of culturally appropriate healthy diets and increased physical activity, such as NCI's "5 A Day Program for Better Health."
- Revise food-related policies to stimulate production and distribution of healthier food choices.

Health Care Providers

- Provide all patients with practical, behaviorally oriented information about diet and physical activity.
- Establish mechanisms for referral of clients with nutrition-related conditions to qualified nutrition counseling services.

Media

- Provide accurate and consistent information on nutrition and physical activity.
- Participate in national, state, and local campaigns to improve eating and activity habits.

Schools

- Incorporate a behaviorally oriented nutrition education curriculum for grades K-12 as part of a comprehensive school health education program.
- Improve the nutritional quality of school meals.
- Provide a consistent nutrition message to students and staff by adopting school policies related to foods served in snack bars, at school functions, and foods used in fundraising activities.
- Incorporate content on nutrition and physical activity into the training curricula for all health professionals.

Physical Activity

Objective

By the year 2006, increase the percentage of New Yorkers participating in regular and sustained physical activity:

- to at least 30 percent of adults 18 years of age and older (baseline: 14.8%, BRFSS, 1994);
- by 20 percent of young people ages 12-21 (baseline: not available; data system to be developed).

Rationale

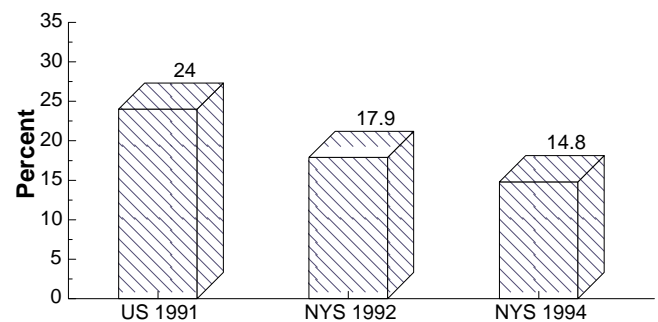
Sedentary lifestyles increase the risk of premature death, cardiovascular disease, high blood pressure, diabetes, and osteoporosis. Physical activity can help control weight, high blood pressure, elevated cholesterol, and diabetes, and can promote psychological well-being. Regular physical activity helps older adults maintain an independent lifestyle, become stronger, be able to move about without falling, and decrease the risk of developing hip fractures. Together with inappropriate diet, inadequate physical activity is the second most important cause of preventable death in New York State.

In the United States, as many as 300,000 chronic disease-related deaths per year are attributable to physical inactivity and inappropriate diet. The majority of these deaths (80%) occur from coronary heart disease. Physical inactivity outranks all major risk factors for coronary heart disease, except for elevated cholesterol. In addition, 43,000 stroke deaths are attributable to physical inactivity and diet. In New York State, approximately 25,000 deaths are attributable to physical inactivity and inappropriate diet.

Size of the Problem

The percentage of New York adults who are physically active has been lower than that of the nation since 1987. A physically active lifestyle is defined by BRFSS as participating in regular and sustained physical activity, that is, physical activity that is done for 30 minutes or more per session, five or more times per week, regardless of intensity. In 1994, the BRFSS estimated that 15 percent of the adult New York population was engaged in regular and sustained physical activity (national average is 24%.) The percent of

Prevalence of Regular and Sustained Physical Activity in Adults Age 18 and Older



Regular and Sustained Activity=physical activity that is done for 30 or more minutes per session, five or more times per week, regardless of intensity. Source: BRFSS (NYS); NHIS (US)

New York State adults who are physically active has declined in nearly every age group since 1992.

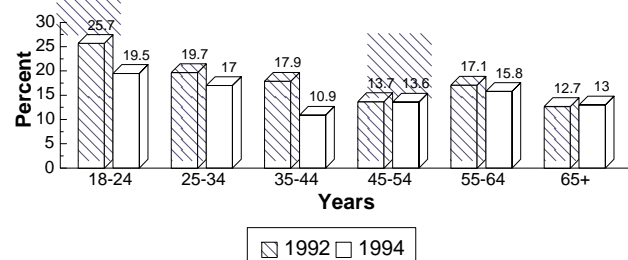
The percentage of New York youth who are physically active is unknown but national surveys indicate that only about one-half of young people (ages 12-21) in the country regularly participate in vigorous physical activity (one-fourth report no vigorous physical activity). Physical activity declines dramatically during adolescence, and daily enrollment in physical education classes has declined among high school students from 42 percent in 1991 to 25 percent in 1995. There is a need to develop methods to monitor patterns of physical activity in youths in New York.

Interventions

The literature notes many successful interventions for increasing levels of physical activity. It is recommended that interventions use a population-based risk-reduction strategy. Evidence indicates that a population-based approach is more effective than targeting segments of the population that are

Prevalence of Regular and Sustained Physical Activity in Adults, by Age

New York State, 1992 and 1994



Regular and Sustained Activity=physical activity that is done for 30 or more minutes per session, five or more times per week, regardless of intensity. Source: BRFSS

at high risk. Furthermore, past experience also indicates that a community or organizational approach will have substantial impact. A recent study has shown that community characteristics influence individual health behavior independently from individual level characteristics.

Another study documented a significant increase in individual levels of physical activity at a naval air station through extended hours at recreation facilities, environmental modifications such as bicycle paths along roadways, and the opening of a women's fitness center. Another comprehensive project in schools documented an increase in overall physical activity levels among children due to modifications to physical education classes and classroom curricula. This increase occurred in nonschool related activities, as well as activity levels during gym class.

Approaches in which alliances are formed with a variety of partner organizations to bring about strategic changes in different community sectors—schools, businesses, health and religious organizations, state and local government, and media—can be effective. Communities can:

- Provide environmental inducements to physical activity, such as safe and accessible trails for walking and bicycling, and sidewalks with curb cuts.
- Open schools for community recreation and encourage malls and other indoor or

protected locations to provide safe places for walking in any weather.

- Encourage health care providers to talk routinely to their patients about incorporating physical activity into their lives.
- Encourage employers to provide supportive worksite environments and policies that offer opportunities for employees to incorporate physical activity into their daily lives.

In 1993, the Centers for Disease Control and Prevention (CDC) and the American College of Sports Medicine (ACSM) brought together a group of experts to review scientific evidence and develop a concise recommendation for physical activity and health. As a result of their deliberations, CDC and ACSM recommended that every American adult should engage in 30 minutes or more of moderate-intensity physical activity on most, preferably all, days of the week. The 30 minutes can be accumulated through several shorter periods of activity during the day.

The report indicated that incorporating more activity into the daily routine is an effective way to improve health. Activities that can contribute to the 30-minute total include walking, climbing the stairs (instead of taking the elevator), gardening, lawn mowing, raking leaves, and dancing, to name just a few. The recommended 30 minutes of physical activity may also come from planned exercise or recreation such as jogging, playing tennis, swimming, and bicycling. Physical activity need not be of vigorous intensity for it to improve health.

Light to moderate physical activity (defined as sustained, rhythmic muscular movements performed at less than 50 percent of maximum heart rate for age) is more readily adopted than vigorous physical activity (rhythmic contraction of large muscle groups, performed at 50 percent or more of estimated age-and-sex-specific maximum cardio-respiratory capacity, three times per week or more for at least 20 minutes per occasion).

1996 Surgeon General's Report on Physical Activity and Health

The first Surgeon General's report on physical activity and health was released on July 11, 1996. Major conclusions of the report include:

- People of all ages, both male and female, benefit from regular physical activity.
 - Significant health benefits can be obtained by including a moderate amount of physical activity (for example, 30 minutes of brisk walking or raking leaves, 15 minutes of running, or 45 minutes of playing volleyball) on most, if not all, days of the week. Through a modest increase in daily activity, most Americans can improve their health and quality of life.
 - Additional health benefits can be gained through greater amounts of physical activity that is of longer duration or more vigorous intensity.
- Physical activity reduces the risk of premature mortality in general, and of coronary heart disease, hypertension, colon cancer, and diabetes mellitus in particular. Physical activity also improves mental health and is important for the health of muscles, bones, and joints.
 - More than 60 percent of American adults are not regularly physically active; 25 percent of all adults are not active at all.
 - Research on understanding and promoting physical activity is at an early stage, but some interventions to promote physical activity through schools, worksites, and health care settings have been evaluated and found to be successful.

Examples of Multipronged Strategies for Increasing Physical Activity

Business/Worksites

- Provide a strong commitment from top management to worksite physical activity programs.
- Change the organizational environment, such as, lunch hour flexibility, well-lighted stairwells, showers, and locker rooms.
- Offer physical activity programs to all employees and family members.
- Offer incentives to employees for improvements in activity levels.

Colleges and Universities

- Conduct research to answer questions, such as, what are the social and psychological factors that influence adoption of a more active lifestyle, what are the mechanisms by which activity affects health.
- Develop better methods for analysis and quantification of activity.
- Evaluate and promote effective physical activity strategies.

Community-Based Organizations

- Establish physical activity facilities open to community residents.
- Use mass media to increase awareness of available facilities.
- Increase awareness of and participation in amateur sports organizations and national organizations with an interest in physical activity, for example, YMCA, YWCA, and the American Association of Retired Persons (AARP).
- Include voluntary health organizations in planning.
- Involve religious organizations as sites and include physical activity in their community programming.
- Involve the community chamber of commerce.
- Working together with health care organizations, businesses, and schools, provide physical activity facilities, such as, easy access to gyms and exercise rooms for patient use.
- Working together with health care organizations, businesses, and schools, provide physical activity programs appropriate for special populations, such as, the elderly, the disabled, and diabetics.

Government

- Provide funding for items that support physical activity, such as, parks, paths for bicycling and walking, outdoor lighting, curbed sidewalks, educational campaigns, and health professional training programs.
- Encourage schools to add curricula to provide daily physical education focused on the establishment of lifetime physical activity habits.
- Provide tax incentives to organizations that include physical fitness programs or facilities.
- Pass laws and building codes to have more convenient access to stairways in buildings.
- Provide physical activity facilities and/or programs for government employees.

Health Care Providers

- Develop physical activity screening and counseling protocols and encourage their use in routine encounters.
- Support or provide incentives for staff to participate in continuing education courses on physical activity.

Media

- Provide accurate and consistent information about the benefits of physical activity and ways to be more active.
- Participate in national, state, and local public awareness and promotional campaigns.

Schools

- Provide quality, preferably daily, K-12 physical education classes.
- Provide greater emphasis on activity-oriented rather than sports-oriented physical education programs; emphasize a curriculum that teaches lifetime physical activity skills.
- Include physical activity courses in adult education curricula.
- Provide access to school buildings by community residents for walking or use of gym facilities, especially in winter months.

Objective

By the year 2006, reduce the incidence of work-related illness, injury and death in every workplace by at least 20 percent. (Individual companies should establish their own baseline rate.)

Objective

By the year 2006, decrease total absence from work due to illness among working adults in New York State by at least 20 percent (baseline: not available; data system to be developed).

Rationale

The worksite provides tremendous opportunities to initiate a broad range of wellness activities which promote healthier lifestyles. The worksite, however, can also be a source of adverse exposures affecting health. These exposures include toxic agents, such as, heavy metals, solvents, or asbestos which may result in occupationally related disease and unsafe physical conditions, such as, unguarded machinery or heavy or bulky objects for lifting, which may result in disabling injury. Nationally, strains and sprains are the leading cause of work-related injury. The trunk, including the back, is the body part most affected by disabling work incidents in every major industry division. According to data collected by the New York State Department of Labor (NYSDOL), back injuries are a persistent problem, representing more than 10 percent of reported injuries, a rate of 0.7 cases per 100 workers. Reducing the rate of back injuries is an important priority in our effort to reduce work-related injury over the next decade.

As society moves to a more service-oriented economy, a trend that has been particularly rapid in New York State, new hazards and disabilities are emerging. For example, repetitive motion disorders, often associated with poor work station design, computer keyboard work, and machine paced operations, have dramatically increased in the last decade. While some of this increase can be attributed to the heightened awareness and reporting of musculoskeletal problems by management, labor and the medical community, these disorders appear

to be on the rise. Nationally, nearly 65 percent of all illnesses reported to the Bureau of Labor Statistics (BLS) were due to disorders associated with repeated trauma. The rate of increase for all musculoskeletal disorders, including carpal tunnel syndrome, is between 5 and 10 percent each year. These disorders can be seriously disabling, resulting in high medical cost and inability to work or perform tasks of daily living. For example, NYSDOL data show the median duration of absence from work for individuals with carpal tunnel syndrome is 31 days. Reducing work-related musculoskeletal disorders, including carpal tunnel syndrome, is an important aspect of creating a safe and healthy work environment.

Occupational disease and injury are highly preventable using a combination of control techniques such as safer chemicals and equipment, workplace ventilation, worker training, and routine workplace medical screening. Although New York State has made tremendous advances in controlling workplace exposures, work-related disease and injury remain persistent problems in the state with significant human and economic costs. For example, during 1994, New York State Workers' Compensation costs alone were in excess of \$5 billion.

The workplace (like schools and other community institutions) also can be a vital place to initiate generalized activities to improve the health status of New Yorkers. Increasingly, employers are instituting health promotion activities as a strategy to improve employee health, reduce absenteeism, forestall or eliminate preventable diseases, improve employee morale, and control health

benefit costs. Worksite health promotion programs can include a range of activities including smoking cessation, cholesterol control, and nutritional education, and weight loss and fitness programs. Although studies are limited, these programs appear to have a positive impact on health outcome, and to be a good investment by reducing health care costs associated with chronic disease. Overall improvement of health status among working adults will contribute to the objective of reducing total illness from work.

Size of the Problem

New York State has 7.7 million workers employed in over 485,000 workplaces. In 1994, there were 364 work-related fatalities, due to traumatic incidents. The most common causes of fatalities were transportation accidents, assaults and violent acts, falls, and contact with objects and equipment. In the public and private sector, there were 390,000 occupational injuries and illnesses recorded by the NYSDOL for 1993; these data best reflect the extent of occupational injuries in the state since occupational disease is underreported. Nearly half of the 1993 injury and illness cases resulted in lost work days. The most common type of injuries were strains and sprains, injuries caused by contact with objects and equipment, and falls.

Occupational disease is a clinically underrecognized problem. Each year in New York State an estimated 4,700 to 6,600 deaths are due to occupational disease. Yet, because there is no single source of comprehensive information on work-related disease, the true magnitude of the problem in New York State is difficult to determine precisely. In addition, physicians are not trained to evaluate work as a cause of disease; on average, a medical student receives less than six hours of training in occupational medicine. Consequently, preventable occupational illness may not be identified. For example, some reports estimate that 5-15 percent of all adult asthma cases are occupational in origin, although most are not identified as such. Increasing physician awareness through education and information dissemination will help physicians more accurately evaluate occupational risk factors among their patients and thus increase opportunities for prevention at the worksite. In addition, physician education can result in improved monitoring of occupational disease.

Interventions

Occupational disease and injuries are highly preventable. They affect large groups of people clustered in one location—the

New York State Workplace Health and Safety at a Glance

Number of Employees	7,697,309	Bureau of Labor Statistics, 1994
Number of Workplaces	485,526	Bureau of Labor Statistics, 1994
Workplace Fatalities	4.56 deaths/ 100,000 workers (statewide total = 364)	New York State Department of Health New York City Department of Health, 1994
Workplace Injuries and Illnesses - Private Sector	6 cases/100 workers (statewide total=318,000)	New York State Department of Labor, 1993
Workplace Injuries and Illnesses - Public Sector	13.1 cases/100 workers (statewide total=72,000)	New York State Department of Labor, 1993

workplace—where prevention strategies can have a large impact. This impact is multiplied when combined with other worksite health promoting activities. Each sector of the community has an important role to play and together their actions can result in a healthier workforce for New York State.

- Both employers and workers play a central role in promoting health and safety at the worksite. Effective workplace programs are important for both the private and public sector and require commitment and participation at all levels, from management, workers, and labor union representatives. Effective programs are proactive, with the goal of preventing disease and injury rather than reacting to these problems after the fact. Health and safety professionals can assist employers in this effort by providing valuable expertise in hazard identification, analysis, and control. In addition, employers, working in collaboration with government, labor, health providers, and insurers, can work to develop a health monitoring system to describe morbidity patterns among working adults. Such a system would establish baseline indicators to measure progress in reducing overall disability over time. One indicator that might yield important information for defining patterns of illness is “absence from work due to illness” for occupational and nonoccupational causes (such as, percent of scheduled work hours absent for illness and injury). This information can be used by employers to target prevention efforts. For example, employers, working in collaboration with local health units, labor organizations, and community groups, could initiate worksite and/or community-based wellness programs to reduce overall morbidity in the workforce.
- Government plays an important role in the collection, analysis, and dissemination of data on work-related disease and injury and Workers’ Compensation and disability. The improvement of quality, timeliness, and

reporting of existing data, and the development of benchmark safety measures by industry and occupational categories are important priorities. This information can be valuable to employers as they develop their worksite safety programs, enabling them to more systematically identify hazards and develop effective control programs to reduce adverse health outcomes and track their progress over time. In addition, such information can enhance employee and employer education programs by describing contributing factors to work-related disease and injury.

- Physicians and health care professionals play an important role in the diagnosis and prevention of occupational disease and injury. Increasing the awareness of occupationally related disease and injury among health professionals, including primary care practitioners, through enhanced professional training, continuing education, and technical assistance is a priority. Professional education should emphasize the use of standardized, scientifically based diagnostic criteria for disease and injury evaluation. Physicians examining children and adolescents also should be cognizant of potential contributions of work-related exposures associated with after-school employment or exposures such as lead, brought home through contaminated clothing of parents or guardians. In addition, environmental exposures should be considered. Not only can these actions improve diagnosis and management of disease, but they can also yield important opportunities for prevention.
- Researchers in government, medicine, and academia play an important role as they undertake initiatives to identify high-risk sectors, evaluate risk factors, and track progress in controlling occupational disease and injury and target prevention efforts.

Examples of Multipronged Strategies for a Safe and Healthy Work Environment

Business/Labor/Worksites

- Commit to workplace prevention programs.
- Take a systematic approach to preventing workers' disease and injury rather than reacting after the fact.
- Collect and analyze injury and illness data and exposure monitoring data.
- Collect and analyze data on absence from work due to illness.
- Educate and involve workers in workplace safety and wellness programs.
- Work in partnership with employers, workers, and labor organizations, to reduce disease and injury in workers.
- Work with local health units, community organizations, and health care providers to develop worksite or community-based wellness programs.

Colleges and Universities

- Increase the emphasis on occupational medicine at all levels of medical training.
- Research factors contributing to ill health in working adults.
- Evaluate the costs of disease and injury affecting working adults.
- Evaluate the effectiveness of prevention strategies.

Community-Based Organizations

- Work with employers, local health units, and unions to improve worker health.

Government

- Collect, analyze, and promptly disseminate data on health for work-related and nonwork-related causes.
- Collect, analyze, and promptly disseminate data on Workers' Compensation and disability; provide technical assistance and consultation to employers, employees, and health providers in their efforts to improve worker health.
- Set and enforce standards to protect worker health.

Health Care Providers and Insurers

- Routinely inquire about a patient's occupational exposures in diagnostic interviews.
- Learn more about work-related disease through continuing medical education.
- Educate patients about the importance of healthier lifestyles.
- Reward employers with good safety records through reduced insurance premium costs and stress the importance of workplace wellness programs.

Media

- Educate the public on factors affecting worker health.
- Feature articles on innovative strategies and programs improving worker health.
- Participate in media and other community-based campaigns to promote healthier behaviors.

Sexual Activity

Objective

By the year 2006, reduce the adolescent pregnancy rate (births, fetal deaths, and induced abortions) to no more than 2 per 1,000 girls aged 10-14 and to no more than 50 per 1,000 girls aged 15-17 (baseline: 3.2 pregnancies per 1,000 girls aged 10-14 and 65.6 pregnancies per 1,000 girls aged 15-17, VS, 1993).

Objective

By the year 2006, reduce unsafe sexual practices so that the percentage of adults 18 years of age and older who have had to be treated for a sexually transmitted disease in the previous five years is decreased by at least 20 percent (baseline: BRFSS asking for this information in the 1996 questionnaire).

Rationale

Adolescent sexual activity can have life-changing or life-threatening consequences: unintended pregnancy and infection with sexually transmitted diseases (STDs), including HIV.

Unintended pregnancy is both frequent and widespread in the United States. It is estimated that 60 percent of all pregnancies are unintended (either mistimed or unwanted), and 90 percent of all adolescent pregnancies are unintended. Women with an unintended pregnancy are less likely to seek early prenatal care and are more likely to expose the fetus to harmful substances such as tobacco or alcohol. Adolescent pregnancy and childbearing decreases the likelihood of completing a high school education, and reduces employment opportunities leading to increased poverty and poorer health outcomes. Teen mothers are less likely to marry. These combined factors increase teen mothers' dependence on public assistance. In 1992, families started by women when they were teens comprised 52 percent of those on Aid to Families with Dependent Children (AFDC). An average teen mother stays on welfare longer than older mothers.

A variety of diseases can be transmitted through sexual intimacy, including *Chlamydia*, trichomoniasis, gonorrhea, human papilloma virus, genital herpes, syphilis, and HIV. Acquiring an STD can have serious, even life-threatening consequences, including infertility, cervical cancer, and AIDS. STDs

have a disproportionate impact on women since the diseases are more easily transmitted to women and more difficult to detect in women. As a result, complications of undiagnosed infections are far more common and severe.

Size of the Problem

Sexual Activity Among Teens

Nationally, and in New York State, adolescents are engaging in sexual activity at a younger age. Factors associated with sexual activity and contraceptive use for males and females are multiple and multi-faceted. According to the Alan Guttmacher Institute, poor and low-income teens are more likely than higher income teens to be sexually active and are less likely to take effective preventive measures. Therefore, pregnancy, STDs, and HIV/AIDS are more common among lower income teens.

Unintended Pregnancy/Adolescent Pregnancy

Unintended pregnancy is not just an adolescent problem, although there are few data on the total percentage of pregnancies that are unintended. The Alan Guttmacher Institute estimates that 1,045,420 New York State resident females aged 13-44 were at risk of unintended pregnancy in 1990, that is, were sexually active and not using adequate contraception. The 1993 New York rate for

Unintended Pregnancy Rate by Race

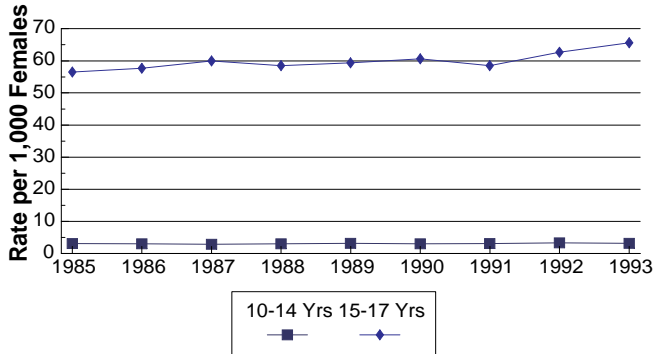
New York State, 1993



Unintended=unwanted, wanted later, or induced abortion.
Source: NYS PRAMS and VS

Pregnancy Rate per 1,000 Females Aged 10-14 and 15-17

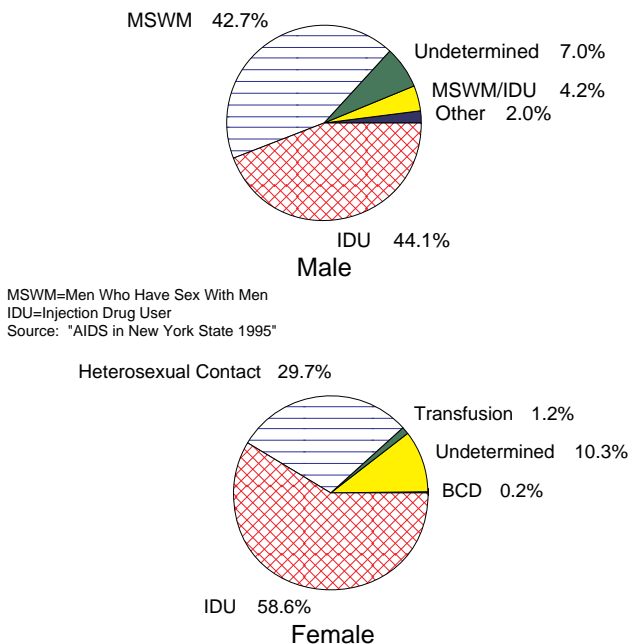
New York State, 1985-93



Pregnancy=all recorded live births and spontaneous and induced abortions

Adult AIDS Cases Reported Through 1995 by Exposure Category and Sex

New York State



MSWM=Men Who Have Sex With Men
IDU=Injection Drug User
Source: "AIDS in New York State 1995"

BCD=Blood Clotting Disorder
IDU=Injection Drug User
Source: "AIDS in New York State 1995"

unintended pregnancy (including unwanted and mistimed pregnancies plus induced abortions) was 55.5 per 100 pregnancies. For white women the rate was 47.6 and for black women 81.1.

The past two decades have seen an unrelenting rise in adolescent pregnancy in New York State. In 1985, teens 15-17 had a pregnancy rate of 56.5 per 1,000 and by 1993 that rate had risen to 65.6 per 1,000. The problem of teen pregnancy also affects younger teens, with a pregnancy rate of 3.2 per 1,000 girls 10-14 years of age in 1993.

Sexually Transmitted Diseases

It is estimated that 13 million people are newly infected with symptomatic STDs nationwide on an annual basis. Data on the incidence and prevalence of STDs among teenagers are often incomplete. Available information suggests that some STDs are extremely common among adolescents. According to the Alan Guttmacher Institute, an estimated 3-6 million adolescent women and men nationally get an STD each year, accounting for 25 percent of all new STD cases annually. Although the number of reported AIDS cases among teenagers is small, about 20 percent of AIDS cases are diagnosed in people in their 20s, most of whom presumably contracted HIV during adolescence.

AIDS is a problem all sexually active adolescents and adults should consider. Sexual contact is the leading mode of transmission of HIV among adult male AIDS cases and the second leading mode of transmission among adult female cases. In New York State, cumulative data through 1995 show that men who have sex with men (including those who also inject drugs) comprise nearly 43 percent of all adult male AIDS cases. Nearly 30 percent of adult female AIDS cases result from heterosexual transmission. Practicing safe sexual behaviors is an important method in reducing the transmission of HIV.

Disparities

There are substantial differences in pregnancy rates between younger and older teenage girls (in 1993, 3 pregnancies/1,000 girls aged 10-14, 66 pregnancies/1,000 girls aged 15-17 and 138/1,000 age 18-19). The

teen pregnancy rates among blacks are more than twice as high as those among whites (173 per 1,000 and 66 per 1,000, respectively). Nearly 80 percent of teen childbearing is concentrated among teenagers who are poor or low-income.

Health Implications

Half of all initial adolescent pregnancies occur within the first six months following initiation of intercourse, and 20 percent in the first month. Within a year, a sexually active teenager who does not use a contraceptive has a 90 percent chance of becoming pregnant. The likelihood for older women is slightly lower. Approximately 25 percent of sexually experienced adolescents become infected each year with HIV and/or STDs, such as, *Chlamydia*, gonorrhea, pelvic inflammatory disease, genital herpes, and human papilloma virus. STD rates appear to decline exponentially with increasing age.

Pregnant teens are twice as likely, when compared to all pregnant women, to receive late or no prenatal care and are also at higher than average risk of pregnancy-related complications. Their infants are more likely to be premature and to require hospitalization within the first five years of life than babies born to women over age 20. Young adolescents (particularly those under age 15) experience a maternal death rate 2.5 times greater than that of mothers aged 20-24. Common medical problems among adolescent mothers include poor weight gain, pregnancy-induced hypertension, anemia, STDs, and cephalopelvic disproportion. It is also believed that teenagers are at greater risk of very long labor. Infants born to mothers less than 15 years of age are more than twice as likely to weigh less than 2,500 grams at birth and three times more likely to die in the first 28 days of life than infants born to older mothers.

In later childhood, children of teen mothers may suffer physical and intellectual impairment and are at risk for child abuse. Teen mothers often fail to complete high school, leading to poor career prospects, and often long-term poverty and dependence on public assistance. Teen childbearing is associated with limited life options for the mother and child. Unintended pregnancies in adults also lead to elevated risks of

inadequate prenatal care, poor pregnancy outcomes, and child abuse and neglect.

Interventions

To reduce the incidence of unintended pregnancy, STDs and HIV among teens, efforts must focus on helping teens delay the onset of sexual activity. Comprehensive family life education in grades K-12 that promotes responsible sexual health including self esteem, family relationships, communication techniques, decision-making skills, pregnancy prevention, STD prevention, and HIV/AIDS prevention is integral to assisting teens delay the onset of sexual activity.

The antecedents and the consequences of adolescent pregnancy stem from a complex mixture of economic, social, health, and educational issues. Effective adolescent pregnancy prevention programs combine abstinence messages with contraceptive education and access. Programs must also focus on expanding teens' life options through education and career preparations. These programs should include attention to males and females. Pregnancy prevention programs require a strong commitment from the entire community: policymakers, educators, health professionals, parents, and teenagers, as well as social service organizations and private businesses. The right message must be reinforced everywhere teens go so that no opportunity is missed to encourage safer sexual behavior. Comprehensive, age-appropriate sex education programs in schools are essential to prevent teen and later unintended pregnancies.

Efforts to delay sexual activity will not eliminate all sexual activity among teens. To prevent unintended pregnancy, STDs, and HIV among sexually active teens, education about safe sexual practices must be provided, and confidential family planning services and supplies must be accessible and available. Family planning providers offer contraceptive education/counseling and a wide range of methods to prevent unintended pregnancy, STDs, and HIV. Access to these services is also crucial for sexually active adults. All New Yorkers must have knowledge of, and access to, affordable, high-quality family planning services.

Special Populations

An often overlooked factor in the incidence of adolescent pregnancy is the effect of childhood abuse and sexual victimization. Pregnancies may be a direct result of the abuse. In addition, numerous studies have demonstrated that adolescent girls who have suffered abuse or sexual molestation are at increased risk of beginning “voluntary” sexual activity earlier, are more likely to use drugs or alcohol, are less likely to use contraception,

and are at higher risk of becoming pregnant and contracting an STD. Research suggests that victimization negatively impacts on personal development, sexual self-esteem and self-concept, causing victims to feel powerless and incapable of preventing adverse events, making personal choices or effecting change. The influence of abuse in the etiology of adolescent pregnancy must be examined in order to provide appropriate preventive services for this subset of the population.

Examples of Multipronged Strategies for Reducing Unintended Pregnancy and Unsafe Sexual Practice

Business/Worksites

- Provide educational and vocational opportunities to teens to help youth envision and realize futures that do not include childbearing at an early age.
- Promote parent-child communication regarding sex and sexuality, such as offering family communication workshops for employees.

Colleges and Universities

- Research factors that influence young men and women to participate in risk-taking behaviors that may result in pregnancy, STDs, and HIV/AIDS.
- Research and evaluate adolescent pregnancy prevention activities to ensure intended outcome.

Community-Based Organizations

- Promote consistent adolescent pregnancy prevention messages.
- Encourage parent-child communication regarding sex and sexuality.
- Promote job training and placement to motivate young men and women to avoid early parenthood.
- Provide individual counseling to assist young people in postponing sexual involvement and in avoiding pregnancy.
- Sponsor enrichment activities after school and on weekends/holidays.

Government

- Promote comprehensive adolescent pregnancy prevention projects, and conduct outreach to promote access to comprehensive family planning services for all sexually active New Yorkers.
- Monitor rates of adolescent pregnancy, live birth, and induced termination of pregnancy rates on a statewide, county, and zip code level, and among subgroups of the population.
- Conduct surveys to determine the overall incidence of unintended pregnancy.
- Provide information on unsafe sexual practices and the resulting consequences for both partners and on pregnancy outcome.

Health Care Providers

- Offer affordable, comprehensive and confidential family planning and reproductive health care services, and appropriate safe sex information.
- Encourage and help parents to discuss sex and sexuality with their children.

Media

- Market adolescent pregnancy preventive messages in articles, radio, and television.
- Promote activities and events for adolescent pregnancy prevention programs using public service announcements and paid advertisements.
- Eliminate programming that glamorizes sexual activity and fails to depict realistic consequences.

Schools

- Implement comprehensive family life education in grades K-12 that promotes responsible sexual health, including self-esteem, family relationships, communication techniques, decision-making skills, pregnancy prevention, STD prevention, HIV/AIDS prevention.
- Focus efforts on postponing sexual involvement and on the provision of referrals to family planning agencies for sexually active teens.
- Promote the use of peer educators to act as counselors to dispel common myths about human sexuality, encourage discussions about responsible sexual behavior, and provide accurate information about where and how to obtain quality family planning services.
- Promote self-esteem building activities, through athletics and other extra-curricular programs.

Substance Abuse: Alcohol and Other Drugs

Objective

By the year 2006, reduce alcohol abuse so that:

- The percent of adults 18 years of age and older who report binge drinking (five or more alcoholic drinks on one or more occasion in the past month) is no more than 7 percent (baseline: 15.1%, BRFSS, 1993).
- The percent of high school students who use alcohol heavily (five or more alcoholic beverages at a time, at least once a week) is no more than 6 percent (baseline: 12%, OASAS, 1994).
- The percent of pregnant women who report drinking during pregnancy is no more than 5 percent (baseline: 9.7%, PRAMS, 1993).

Objective

By the year 2006, reduce the percent of adults and adolescents who abuse drugs so that:

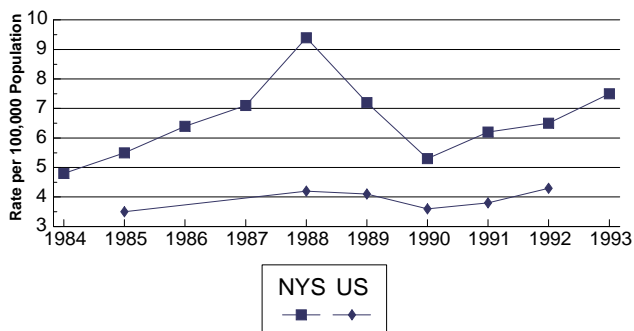
- The age-adjusted drug-related mortality rate is no more than 3 per 100,000 people (baseline: 7.5 per 100,000, VS, 1993).
- No more than 15 percent of high school students ever used marijuana, 10 percent ever used inhalants, 10 percent ever abused prescription analgesics, and 2 percent ever used cocaine (baseline: 35% marijuana, 21% inhalants, 18% analgesics, 5% cocaine, OASAS, 1994).
- The neonatal drug-related discharge rate is no more than 6 per 1,000 births (baseline: 10.6 per 1,000, SPARCS, 1994).

Rationale

Abuse of alcohol and other drugs leads to multiple acute and chronic adverse health outcomes. Alcohol abuse or problem drinking can be defined as drinking on average two or more drinks of alcohol per day, that leads to one or more negative consequences in a significant life area, such as, family relations, school work, or occupation. Alcohol use leads

Age-Adjusted Drug-Related Mortality

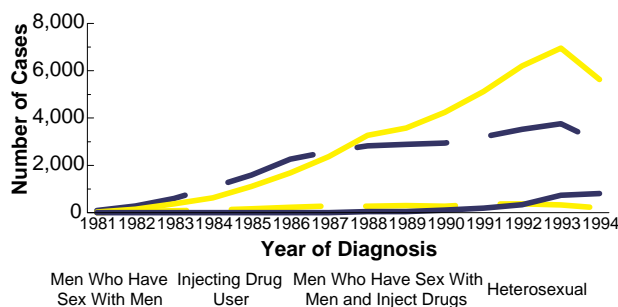
New York State and the United States, 1984-93



Adjusted using 1940 United States population

Adult AIDS Cases by Risk

New York State, 1981-94



Source: Bureau of HIV/AIDS Epidemiology, NYSDOH
Data As of December 31, 1995

Footnote: Trends in recent years are affected by the 1993 change in the AI case definition and by lag in reporting.

to decreased inhibitions and judgement that contribute to reckless and sometimes violent behavior, and on a chronic basis can lead to numerous health problems, including gastritis, anemia, hepatitis and cirrhosis, pancreatitis, cognitive deficits from brain damage, and fetal alcohol syndrome in the newborn. Abuse of other drugs, (for example, cocaine, hallucinogens, narcotic analgesics, heroin)

also contributes to impaired judgement and decreased inhibitions, and can cause seizures, depression and other emotional problems, impaired memory and learning from brain damage, and disruption of normal hormone balance. The age-adjusted drug-related mortality rate was 7.5 deaths per 100,000 New Yorkers in 1993, the second highest rate for any year in the past decade.

Alcohol and drug abuse also promotes the spread of multiple communicable diseases. Decreased inhibitions from using alcohol or drugs and the exchange of sex for drugs both contribute to unsafe sexual practices that have resulted in increased sexual transmission of diseases such as syphilis, gonorrhea, AIDS, and hepatitis B. In addition, the sharing of needles by injection drug users leads to further transmission of AIDS, and hepatitis. Currently, New York ranks first in the nation in the number of injection drug users with AIDS. In 1994, more than 7,000 cases were reported. Since 1987, injection drug use has been the leading risk factor for AIDS in New York State, accounting for nearly half of all cases reported in 1994.

There is a strong link between drug and alcohol abuse and crime. Criminal behavior, as a means of maintaining a drug habit, is frequently associated with illicit drug use. Federal studies indicate that 70-80 percent of all arrestees test positive for drugs. Because it lowers inhibitions, alcohol contributes to both street violence and domestic violence. A survey by the Institute for Health Policy of Brandeis University found that up to two-thirds of all homicides and serious assaults involve alcohol.

Alcohol use has particular significance for young drivers. In 1994, 29 percent of the 2,610 traffic fatalities involving persons 15-17 years old were alcohol related. This percentage was even higher (44%) for 18-20 year olds. Among young persons who drive after drinking alcohol, the relative risk of being involved in a crash is greater at all blood alcohol concentrations than it is for older persons.

Alcohol and drug abuse has a significant negative impact on pregnancy outcomes. There are direct effects on the mother and baby, including poor nutritional status of the mother, birth defects, low birthweight, premature labor, and drug withdrawal by the infant. In addition, drug abuse indirectly

influences pregnancy outcome through late entry into prenatal care and risk of HIV, hepatitis B, and other infections that may be transmitted to the infant. Much of the increase in child welfare agency caseloads in the past two decades is attributable to the effects of substance abuse on infants and family functioning. Prenatal care can help pregnant women avoid alcohol and drugs, but effective intervention to reduce substance abuse during pregnancy is often complicated by the mother's late entry into prenatal care, her reluctance to disclose substance abuse out of fear that her children will be taken from her, and the limited number of treatment programs available.

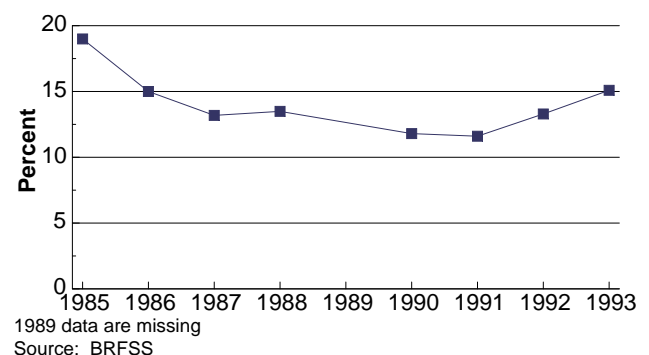
Because of the importance of early intervention and the dire consequences of alcohol and drug abuse on youth and the developing fetus, it is particularly important to foster a social climate of zero tolerance for *any* alcohol or drug use among adolescents and pregnant women.

Size of the Problem

Alcohol is the most commonly used drug in New York State, with approximately 1.3 million adult and 100,000 adolescent problem drinkers in the state. The 1993 Youth Risk Behavior Survey by the Centers for Disease Control and Prevention showed that 53 percent of high school students in New York State, outside New York City, reported having used alcohol in the last month and 32 percent reported binge drinking (having five or more drinks on one occasion in the past month). The 1993 statewide Behavioral Risk Factor Surveillance

Binge Drinking Among Adults Aged 18 Years and Older

New York State, 1985-93



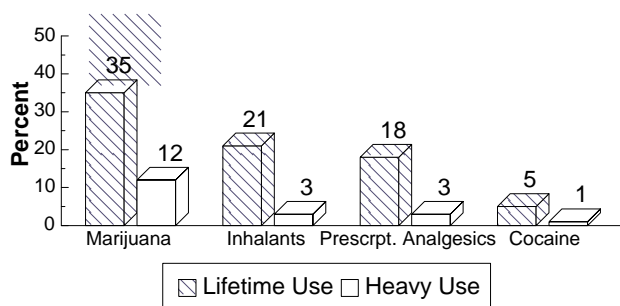
Survey found that 15 percent of adults over 18 years of age were binge drinkers (five or more alcoholic drinks on one or more occasion in the past month). More than 33 percent of high school students reported being a passenger in an automobile with a driver who had been drinking alcohol. Multidrug use most commonly involves alcohol. Overall, approximately 1.5 million adult New Yorkers (almost 11% of the adult population) have an alcohol and/or nonnarcotic drug problem and are in need of treatment. In addition, the most recent estimates from the 1980s suggest that there were 260,000 heroin users in New York State, of whom 200,000 were in New York City. Although the number of cocaine users is relatively low compared to alcohol, with an estimated 181,000 regular and heavy cocaine users in New York State (1.2% of the adult population), cocaine is highly addictive and can lead to drug-seeking behavior that involves unsafe sexual practices. Drug use among adolescents is alarmingly common, with 18 percent reporting abuse of prescription analgesics and 5 percent reporting use of cocaine.

Interventions

Addressing the problem of alcohol and other drug abuse requires prevention efforts directed at youth. In 1990, the Institute of Medicine reported that very few people after reaching 25 years of age begin using drugs. The introduction to injection drug use often occurs in stages over time, proceeding, for example, from alcohol and tobacco, to marijuana, to other orally or inhalable

Drug Use Among Adolescents, Grades 7-12

New York State, 1994



Lifetime Use=used at least once
Heavy Use=used four or more days during the past month
Source: OASAS Statewide Survey

substances, and lastly to injection of heroin or stimulants. The injection phase commonly begins between the ages of 17 and 20.

Because of the early onset of alcohol and drug use, identifying preadolescent youths at risk of excessive use is important to guide prevention programs aimed at reducing alcohol- and drug-related disease and deaths. Prevention programs should address the many factors that are related to drug use. The federal Office of Substance Abuse Prevention has classified these factors into five broad categories:

- *Family Factors* – family history of alcoholism, parental alcohol and drug use and attitudes favorable to such use, and youngsters with parents or siblings who show antisocial behavior.
- *Peer Factors* – older siblings or close friends involved in alcohol or drug use.
- *Psychological Factors* – low interest in school and adult achievement, school failure, alienation, and early antisocial behavior.
- *Biological Factors* – genetic predisposition.
- *Community Factors* – factors that favor delinquency, including communities characterized by high levels of mobility, high population density, extreme poverty, and environmental factors, such as, the number of liquor outlets and bars.

To address the multiple causes of alcohol and drug abuse, a multipronged community-level approach that includes prevention, effective treatment, and law enforcement is necessary. The overall strategy is to prevent persons from first abusing alcohol or drugs, treating those who have developed abusive behaviors, and supporting the criminal justice system in its attempt to remove drug traffickers from New York's communities. As reflected in the objectives at the beginning of this chapter, success in decreasing alcohol and drug abuse can be measured by several sentinel markers: binge drinking, heavy drinking among high school students, pregnant women who drink, drug-related mortality, drug use by high school students, and the neonatal drug-related discharge rate.

A comprehensive community approach might include initiatives that help develop social skills especially among troubled youth before they develop drug-abusing behaviors,

educate parents about the effect of their alcohol or drug abuse on their children, teach stress management techniques, provide for early identification and intervention for persons at risk, and provide appropriate treatment services. Providing a full continuum of care for chemically dependent persons will lead not only to decreased abuse by individuals, but also to reduced criminal activity, leading to safer communities.

Even with the most effective interventions, controlling substance abuse will be difficult, and there are currently a shortage of drug treatment services in many areas of the state. Therefore, promotion of harm reduction techniques, such as syringe exchange programs, can be an important part of a comprehensive intervention program, which can help to decrease transmission of

communicable diseases like AIDS.

Greater awareness of the alcohol content of beverages can also help decrease alcohol abuse. For example, some people may not consider beer or wine coolers as sources of alcohol that can be abused.

Special community programs to prevent alcohol-related motor vehicle crashes are also important. Such programs may include tighter enforcement of minimum drinking age laws, workshops for judges and police officials to address the special problems associated with alcohol-related offenses among youth, prompt license suspension for persons who drive while intoxicated, and the initiation of public education, community awareness, and media campaigns about the dangers of alcohol-involved driving.

Examples of Multipronged Strategies for Decreasing Substance Abuse

Business/Worksites

- Promote campaigns to encourage drug-free worksites.
- Develop employee assistance programs that address drug and alcohol abuse problems and provide rehabilitation.

Colleges and Universities

- Research the effectiveness of current and new treatment strategies.
- Research personal and societal factors leading to drug and alcohol abuse.
- Train professionals to recognize and effectively treat drug and alcohol abuse.
- Provide on-campus alcohol and drug abuse prevention programs and referral services.

Community-Based Organizations

- Provide increased recreational and other group activities for youth.
- Encourage parents to set the example of drug and alcohol-free homes.
- Organize presentations on drug abuse by service providers and police.
- Organize local community anti-drug abuse campaigns.

Government

- Support the goal of providing drug and alcohol abuse treatment programs for all who need them.
- Promote training of and fair compensation to providers of substance abuse treatment.
- Provide adequate resources to criminal justice system to arrest, prosecute, and punish drug traffickers.
- Drug test probationers and parolees.

Health Care Providers

- Integrate drug and alcohol abuse treatment with general health care services by assuring linkage with appropriate referral services.
- Identify persons most at risk of drug or alcohol abuse and provide early, effective intervention.

Media

- Present public service announcements regarding the dangers of drug and alcohol abuse, the availability of treatment services, and the dangers of driving after drinking and of drinking during pregnancy.
- Announce community recreational activities and informational meetings.
- Promote fund raisers for support of community recreation, activities for youth, drug treatment services, and law enforcement.
- Present articles or news programs that report positive personal or community responses to drug and alcohol abuse.

Schools

- Teach effective parenting skills.
- Expand teaching modules on drug and alcohol-free lifestyles.

Tobacco Use

Objective

By the year 2006, reduce the prevalence of smoking so that:

- The percentage of adults 18 years of age and older who smoke is no more than 15 percent (baseline: 21%, BRFSS, 1994).
- The prevalence of daily smoking among adolescents is no more than 10 percent (baseline: 17%, OASAS, 1994).
- The prevalence of smoking among pregnant women is no more than 10 percent (baseline: 19.5%, PRAMS, 1993).

Rationale

Tobacco is an addictive drug. Tobacco causes more disease and death in New York State than any other pathogen. In 1993, 31,600 New Yorkers died of tobacco-associated conditions, accounting for 19 percent of all deaths. The direct medical costs related to smoking in New York State exceed \$3 billion annually. Tobacco causes 30 percent of all cancer deaths, 82 percent of deaths from pulmonary disease, and 21 percent of deaths from chronic heart disease, and is one of the most important preventable causes of perinatal morbidity and mortality. More than 1,500 fire deaths and 4,600 injuries are attributable to cigarettes in the United States. In New York State in 1992 alone, the use of cigarettes caused 33 percent of fatal fires taking 733 lives.

According to the National Institutes of Health, the use of smokeless tobacco also substantially increases the risk for a number of oral diseases and conditions, ranging from oral cancers to dental caries, gingivitis, and early tooth loss. Several studies have documented increased elevations in blood pressure.

In January 1993, the US Environmental Protection Agency (EPA) officially declared environmental tobacco smoke (ETS) to be a known human carcinogen, classifying it as an environmental toxin equivalent to asbestos and other hazardous substances. The EPA's report *Respiratory Health Effects of Passive Smoking: Lung Cancer and Other Disorders*, calls ETS a serious and substantial health risk for nonsmokers, particularly children. More than 4,000 individual compounds have been

identified in tobacco and tobacco smoke. Some of these compounds are tar, carbon monoxide, hydrogen cyanide, phenols, ammonia, formaldehyde, benzene, nitrosamine, and nicotine.

ETS can cause lung cancer in healthy adult nonsmokers (nationally, about 3,000 per year). A January 1991 report published in *Circulation* concluded that exposure to ETS causes about 10 times as many deaths from heart and blood vessel diseases as it does from cancer (nationally, about 30,000 per year). Children of parents who smoke have more respiratory symptoms and acute lower respiratory tract infections, as well as evidence of reduced lung function, than do children of nonsmoking parents.

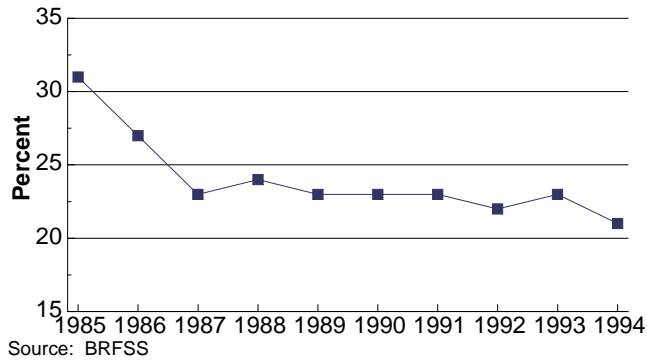
Size of the Problem

In 1994, the prevalence of cigarette smoking among adults in New York State was 21 percent. After falling steadily for several years from 31 percent in 1985, the prevalence has remained largely unchanged during the 1990s. Smoking rates among pregnant women are substantially higher than the *HP2000* objective of 10 percent. In 1993, more than 19 percent of pregnant women in New York reported smoking.

A survey by the state Office of Alcoholism and Substance Abuse Services (OASAS) shows tobacco use increasing among New York's teenagers, reflecting trends also observed nationwide. Among 7th to 12th graders, reported lifetime use of cigarettes (used at least once) increased from 46 percent in 1990 to 55 percent in 1994. The prevalence of

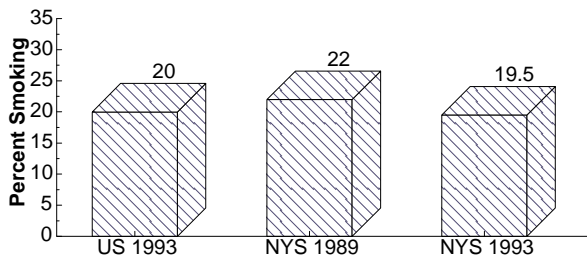
Prevalence of Smoking in Adults Aged 18 and Older

New York State, 1994



Prevalence of Smoking in Pregnant Females

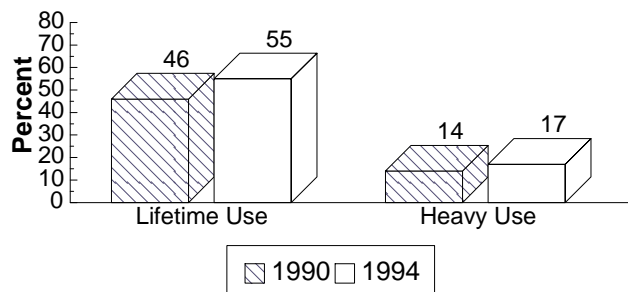
New York State (excluding New York City) and the United States



Sources: NYS 1989 Reproductive Health Survey
 NYS 1993 Pregnancy Risk Assessment Monitoring System
 United States National Health Interview Survey

Smoking Among Adolescents Grades 7-12

New York State, 1990-94



Lifetime Use=used at least once
 Heavy Use=used one or more times daily
 Source: OASAS Statewide Survey

daily smoking increased from 14 percent to 17 percent, with most of the increase occurring in younger age groups. Among 7th and 8th graders, those reporting cigarette use increased from 31 percent in 1990 to 44 percent in 1994. Among 5th and 6th graders, lifetime use increased from 15 percent in 1990 to 17 percent in 1994. Among adult smokers, 89 percent began using cigarettes and 71 percent began smoking daily before age 18.

During the 1980s, smoking decreased significantly among black youth, but that trend has reversed. The OASAS survey shows a 50 percent increase in smoking among black high school students since 1990. Given the addictive nature of this substance, the increase in adolescent tobacco use is particularly troublesome. Based on historical experience, half of all 15 year old smokers will still be smoking 20 years from now, and half of those smoking at age 35 will die of tobacco-caused disease, losing on average 15 years of life expectancy.

Interventions (including smokeless tobacco)

The overarching goal is for a tobacco-free New York State. The following suggestions for areas of intervention come from several sources, among them a 1994 publication of the Institute of Medicine of the National Academy of Sciences report, *Growing Up Tobacco Free*, which summarizes the state of the art of tobacco control interventions.

- Public education programs should be increased and implemented on a continuous basis to inform the public about the hazards of tobacco use and environmental tobacco smoke and to promote a smoke-free environment.
- State government can help localities by assisting in the coordination of community resources to address tobacco use prevention and by providing community stakeholders with the skills and resources to become a partner in developing solutions that fit their community.
- Mass media campaigns, including paid messages on tobacco avoidance, should be intensified and persistent to reverse the image appeal of tobacco, especially to children.

- Tobacco-free policies should be adopted in all public locations, public buildings, cultural and entertainment facilities, and workplaces.
- Schools should integrate proven tobacco use prevention curricula or integrate characteristics of effective curricula into comprehensive school health education programs, and should introduce successful enforcement provisions for tobacco use on school grounds. Schools should encourage and provide opportunities for youth to be active in helping to create and implement solutions to tobacco use among peers. They should provide not only cessation programs, but also programs that allow youth to deal with personal issues that result in their need to use tobacco products.
- Reducing youth access to tobacco products is an essential component of any comprehensive strategy to reduce nicotine addiction. Most underage tobacco users buy the product themselves or obtain it from another minor. The state should work with enforcement agencies and retailers with the aim of gaining universal compliance with the Adolescent Tobacco Use Prevention Act (Public Health Law Article 13-F). Retailers should be encouraged to remove self-service displays of tobacco products, which are particularly attractive to children.
- State policies should encourage health care provider organizations and clinicians to adopt the Smoking Cessation Clinical Practice Guidelines of the U.S. Agency for Health Care Policy and Research (AHCPR). Health care providers and institutions should adopt policies on tobacco use that protect patients from exposure to ETS; role model nontobacco use on the grounds of institutions; and outline quality control procedures for cessation and prevention of tobacco use among patients and their families.
- Businesses should provide ongoing cessation assistance to employees and economic incentives for quitting, such as lower insurance premiums to nonsmoking employees. Health insurance companies should provide discounts to companies which provide these incentives to their employees. Businesses should adopt policies that encourage the use of cessation coping techniques at work, such as exercise, healthy food choices, and access to mental health services.

Examples of Multipronged Strategies for Decreasing Use of Tobacco

Business/Worksites

- Establish smoke-free worksites, restaurants, entertainment/sport facilities, transportation.
- Campaign to encourage compliance with prohibitions on tobacco sales to minors.
- Offer group counseling and smoking cessation programs for employees.
- Provide economic incentives, such as, lower insurance premiums to nonsmoking employees.

Colleges and Universities

- Research factors influencing tobacco use.
- Identify and evaluate anti-smoking strategies.

Community-Based Organizations

- Define smoke-free public spaces.
- Create paid mass media campaigns to decrease the appeal of tobacco.
- Offer counseling and treatment in clinical settings, such as prenatal, family planning, and STD clinics.
- Provide smoking cessation programs.

Government

- Establish smoke-free zones.
- Enforce laws prohibiting sales of cigarettes and smokeless tobacco to minors.
- Monitor smoking rates among different subgroups of the population.
- Discourage promotion of the use of tobacco to youth under 18 years old.

Health Care Providers

- Offer anti-smoking counseling for individuals.
- Prescribe nicotine chewing gum and patches.
- Provide or refer patients to smoking cessation programs.
- Adopt AHCPR Smoking Cessation Clinical Practice Guidelines.
- Provide smoke-free environments.
- Promote nonsmoking role models.

Media

- Highlight articles about : (1) the harms of tobacco and environmental tobacco smoke; (2) the important influence of social environment on individual's use of tobacco; and (3) community efforts to change the social environment in a manner that helps smokers and tobacco chewers quit and discourages others from starting to use tobacco.
- Provide frequent pro bono anti-smoking advertising.

Schools

- Establish zero tolerance for tobacco use on school grounds.
- Include tobacco use-prevention curricula (health education).
- Prominently display anti-tobacco posters.

Unintentional Injury

Objective

By the year 2006, reduce the incidence of unintentional injury among children, young adults, adults and seniors so that the rate of hospitalizations due to unintentional injuries is no more than:

- 385 per 100,000 children aged 0-14 years (baseline: 487 per 100,000, SPARCS, 1990-93).
- 475 per 100,000 young adults, aged 15-24 years (baseline: 597 per 100,000, SPARCS, 1990-93).
- 420 per 100,000 adults aged 25-64 years (baseline: 527 per 100,000, SPARCS, 1990-93).
- 1,615 per 100,000 seniors aged 65 years and older (baseline: 2,024 per 100,000, SPARCS, 1990-93).

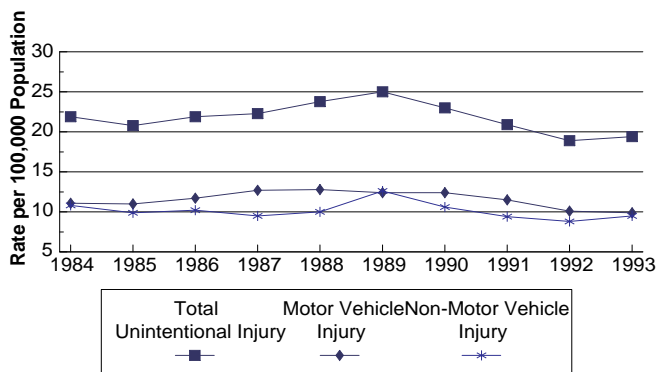
Rationale and Size of the Problem

By nearly every measure, unintentional injury ranks as one of our most pressing public health problems. Each year, almost 5 million New York State residents sustain nonfatal, unintentional injuries severe enough to require medical attention. Nearly 1 million will be treated in hospital emergency departments; more than 130,000 will require hospitalization; and, more than 4,600 will die of their unintentional injuries. Unintentional injury is the leading cause of death for children in New York ages 1-9, and the second leading cause among the 10-24 year old age group.

For young children, the greatest risk of unintentional injury death is from car crashes (as occupants and pedestrians), drownings and fires. For young adults, particularly males, the most frequent cause of injury death is from motor-vehicle crashes. For people older than 65, falls are the leading cause of injury death.

Age-Adjusted Unintentional Injury Mortality

New York State, 1984-93



Adjusted using 1940 United States population

Although the greatest cost of injury is in human suffering and loss, the financial cost is staggering as well – both in health care dollars and in losses to society. Hospital charges alone for unintentional injuries occurring in New York State in 1993 totaled nearly \$1.4 billion. These charges represent only a small part of the total cost of injuries; there are many other direct and indirect costs such as physician visits, prescription drugs, physical therapy, disability payments, loss of income, loss of productivity, and lost taxes.

Estimated Hospitalization Charges

Hospitalizations Due to Unintentional Injuries

New York State, 1993

Age Group	Estimated Total Charges (Million \$)
0-14	\$94.3
15-24	95.9
25-64	450.5
65+	744.7
All Ages	\$1,385.4

Interventions

The tragedy of injury is that most of the resulting deaths, disabilities, and disfigurements need not happen at all. With injury, prevention activities lead directly to reduced human damage. Injuries are not “accidents” – rather, they can be predicted, and they can be prevented. Many injuries can be prevented entirely or their severity can be lessened. Several prevention strategies that are proven to

reduce occurrence and severity are available now, others are being developed:

Children (0-14 Years)

- Resurface playgrounds with safety material to prevent fall injuries.
- Increase the installation and improve the maintenance of functional smoke detectors to prevent smoke inhalation deaths.
- Increase the use of child safety seats and seat belts to prevent fatalities from motor vehicle crashes.
- Increase the installation of four-sided fencing around home swimming pools to prevent drownings.
- Educate parents about the importance of properly supervising children around traffic, and educate children about traffic safety to prevent pedestrian injury.
- Increase the use of bicycle helmets for all riders.

Young Adults (15-24 Years)

- Increase the use of seat belts by all motor vehicle occupants.
- Enforce minimum legal drinking age laws.
- Promote designated-driver and safe-ride programs.
- Increase the use of bicycle and motorcycle helmets.

Adults (25-64 Years)

- Amend driving while intoxicated (DWI) standards for blood alcohol concentrations (BAC) to 0.05 g/100mL for adults.
- Increase the use of seat belts by all motor vehicle occupants.
- Educate adults about the risk of pedestrian injury from alcohol or other drugs.
- Increase the use of bicycle and motorcycle helmets.

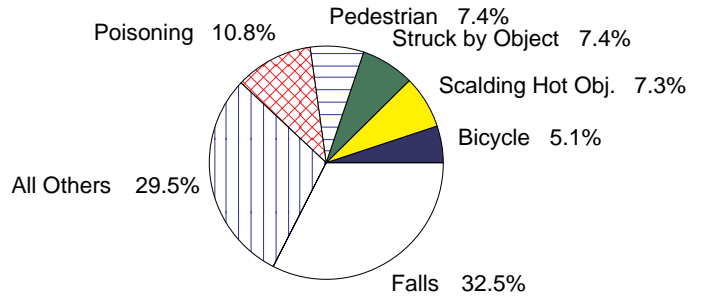
Seniors (65 Years +)

- Promote exercise and self-assessment to adapt to changing physical and medical conditions.
- Ensure medical treatment for modifiable conditions, such as vision changes, depression, or osteoporosis.
- Conduct environmental inspections and modifications to reduce fall hazards.

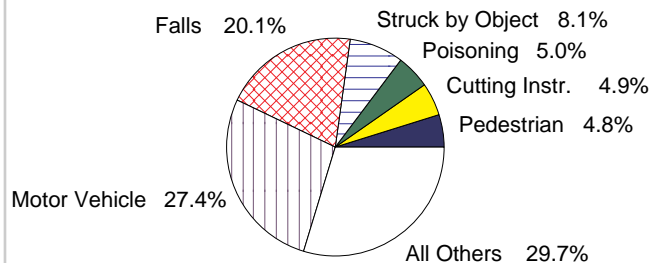
- Increase the use of bicycle and motorcycle helmets.
- Increase the use of seat belts by all motor vehicle occupants.

Hospitalizations Due to Unintentional Injuries by Age

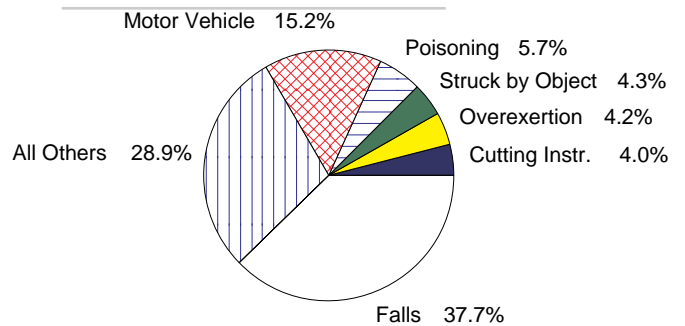
New York State, 1993-94



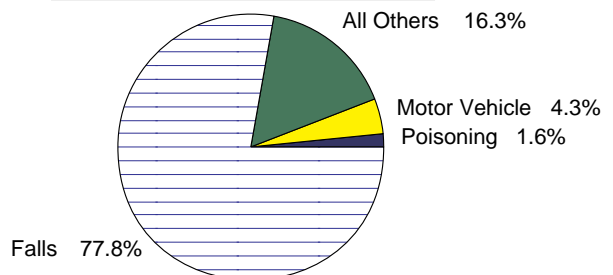
0-14 Years of Age
(N=31,657)



15-24 Years of Age
(N=25,867)



25-64 Years of Age
(N=102,672)



65 Years of Age and Older
(N=107,667)

Examples of Multipronged Strategies for Reducing Unintentional Injury

Business/Worksites

- Adopt safe-driving policies for business travel.
- Promote designated-driver and safe-ride programs.
- Participate on local injury coalitions and task forces.
- Implement proven prevention strategies through place of employment.

Colleges and Universities

- Conduct applied research to find effective new prevention strategies.

Community-Based Organizations

- Distribute safety devices to low income families (such as bike helmets, smoke detectors).
- Monitor condition of community playgrounds and make repairs as needed.
- Promote exercise and environmental modifications for older adults.
- Identify street crossing hazards for children and the elderly.
- Participate on local injury coalitions and task forces.

Government

- Enforce speed limit, DWI, and safety restraint laws.
- Enforce building code requirements for smoke detectors.
- Enact code requiring four-sided swimming pool fencing.
- Inform the public of injury risks and prevention measures.
- Monitor trends in unintentional injury.

Health Care Providers

- Conduct age-specific injury risk assessment for patients, especially among the elderly.
- Provide injury prevention messages as part of healthy behavior information.
- Treat modifiable conditions which predispose a patient to injury.
- Provide injury data to help guide local planning.
- Participate on local injury coalitions and task forces.

Media

- Publish safety surveys on playgrounds, street crossings, etc.
- Print feature articles about smoke detectors, child restraints, pool fencing, etc.
- Continue reporting of alcohol involvement and seatbelt use in motor vehicle crashes.
- Produce and air radio and television public safety announcements on injury prevention.

Schools

- Upgrade playgrounds as needed.
- Provide age-appropriate injury prevention information.
- Participate on local injury coalitions and task forces.

Violent and Abusive Behavior

Objective

By the year 2006, reduce the age-adjusted homicide mortality rate to no more than 10 per 100,000 people and reduce the rate of hospitalizations due to assaults to no more than 65 per 100,000 people (baseline: homicide mortality rate: 13.9 per 100,000, VS, 1993; and assault-related hospitalization rate: 94.7 per 100,000, SPARCS, 1990-93).

Objective

By the year 2006, reduce domestic violence, abuse and neglect so that:

- The number of indicated abuse or neglect cases in children under 18 years of age is no more than 4 cases per 1,000 children 0-17 years of age (baseline: 7.8 per 1,000, DSS Bureau of Child Protective Services, 1993-95).
- The number of women reporting being a victim of a physically violent act by an intimate partner during the previous year is no more than 3 per 100 couples (baseline: 5.6 per 100 couples, BRFSS, 1994).
- The rate of abuse or neglect of seniors is reduced by at least half (baseline: not available; data system to be developed).

Rationale and Size of the Problem

Homicide/Assaults

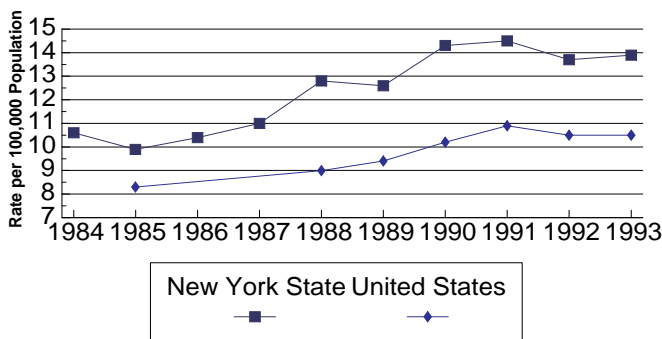
Deaths caused by violence account for nearly one-half of all injury deaths. In 1993, 47 New Yorkers were murdered each week; another 329 were hospitalized with assault-related injuries. Homicides were the leading cause of death among 15-24 year olds in New York's urban counties from 1990-1993, accounting for 48 percent of all deaths. This eclipses the combined total for the next four leading causes – motor vehicle crashes, suicides,

infectious diseases, and cancer. The age-adjusted homicide mortality rate for New York in 1993 was one-third higher than for the United States (13.9 per 100,000 vs. 10.5 per 100,000).

The groups at highest risk for being murdered are the young, males, and blacks. Firearms account for 72 percent of all homicides. Each year, more New Yorkers are killed by firearms than die in motor vehicle crashes. The cost of gunshot wounds alone, in New York State, including medical and mental health care, emergency transportation, police services, insurance administration, loss of future earnings, and quality of life, has been estimated to exceed \$11 billion each year. Hospitalizations due to assault, while

Age-Adjusted Homicide Mortality

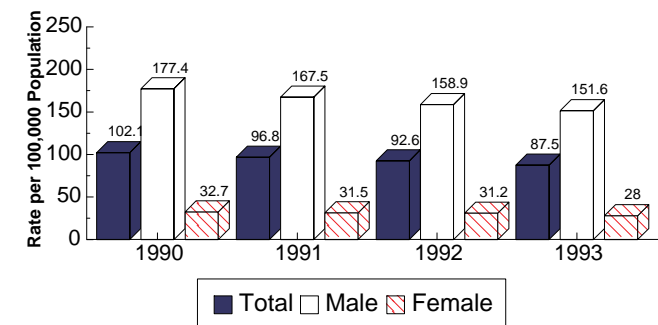
New York State and United States, 1984-93



Adjusted using 1940 United States population
United States 1993 data are provisional

Hospitalizations Due to Assault, by Sex

New York State and United States, 1990-93



Source: NYSDOH SPARCS

decreasing since 1990, are very high, especially in male New Yorkers, 151.6 per 100,000 males and 28 per 100,000 females in 1993.

Domestic Violence

In 1992, 5,373 women in the United States were murdered. Six of every 10 of these women were killed by someone they knew. Of those who knew their assailant, about half were killed by their spouse or someone with whom they had been intimate. An estimated four New York State women are killed each week by an intimate partner or family member. In 1995 in New York State, 88,631 reports of family offenses were made to the police. The real extent of domestic violence in New York State is unknown because there is no system for collecting this information. National estimates reveal that:

- Battery is the single major cause of injuries to women, more significant than motor vehicle crashes, rapes, and muggings combined.
- More than 1 million women seek medical assistance for battery each year.
- Between 21 and 30 percent of women have been beaten by a partner at least once.
- The vast majority of domestic homicides are preceded by episodes of violence.
- Thirty percent of women murdered in the United States in 1992 were murdered by a husband or boyfriend.

The public health impact of domestic violence is compounded by the fact that this violence often escalates in frequency and severity. Three-fourths of the women who are injured once continue to experience ongoing abuse, including one in three reported assaults involving the use of a weapon or resulting in serious injury. Without appropriate interventions, these women are at high risk for developing serious, complex medical and psychosocial problems, including HIV infection, STDs, unwanted pregnancies, drug and alcohol addiction, anxiety and/or depression symptoms, eating disorders, and suicidal ideation and attempts. One in four females who attempt suicide has a history of battering. Additionally, battering frequently starts or escalates during pregnancy; research indicates that one in six adult pregnant women and one in five pregnant teens were

battered during pregnancy. Battering during pregnancy is highly associated with negative birth outcomes including low birthweight.

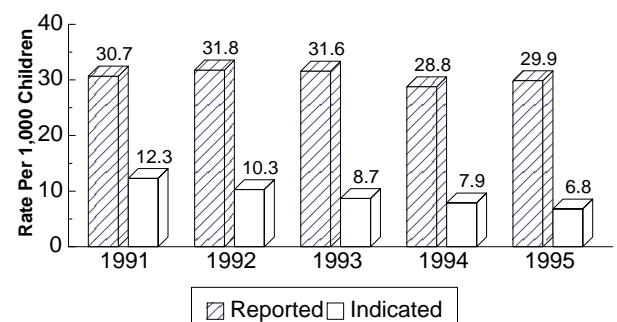
Child Abuse

Child abuse and neglect is a major public health problem in New York State. In 1994, there were 48,648 indicated cases of child abuse and neglect statewide (13,760 in New York City and 34,888 in the rest of the state). An indicated case is one in which there is evidence of abuse and neglect. Of these indicated cases, 15,974 involved children under five years of age, 14,390 involved children between the ages of five and nine years old, 11,874 involved children between the ages of 10 and 15 years, and 6,410 of these cases were children aged 15 years or older. The 1995 indicated child abuse rate was nearly 7 per 1,000 children aged 0-17 years old.

Child maltreatment contributes significantly to the problems of mortality and morbidity in children, particularly in infancy and early childhood. National data indicate that two-thirds of mortality and most of the morbidity resulting from physical abuse occur in the first two years of life. Substantial empirical research exists documenting the deleterious effects of maltreatment on children's development. Child abuse and neglect have been linked to poor physical development, neurological problems, language and cognitive deficits, subnormal intelligence, high levels of aggressive and aversive behaviors, failure to thrive, poor self-concepts, unwanted pregnancies, STDs, and emotional problems. Although the physical, intellectual, cognitive, social, and emotional deficits, and behavioral

Reported and Indicated Child Abuse Cases 0-17 Years of Age

New York State, 1991-95



Source: NYS DSS, Child Protective Services, March 1996

problems (including aggressive, aversive, and negativistic behaviors) exhibited by abused and neglected children are similar, neglected children suffer the greatest deficits and demonstrate the most negative behaviors.

The long-term consequences and social costs of child maltreatment are high. The National Committee to Prevent Child Abuse estimates that the minimal annual cost of maltreatment (including costs related to hospitalization, counseling, foster care, juvenile placements, inpatient mental health care, investigative services, and family preservation services) is \$9 billion. Maltreatment has been associated with juvenile delinquency, adolescent runaways, and violent behaviors in youth. The intergenerational patterns of incompetency in social relationships and in childrearing are well-substantiated. Research on the relationship between child maltreatment, school performance, and the need for special educational services suggest that maltreated children require numerous remedial services in school.

Interventions

Homicide/Assaults

Effective strategies to reduce violence must include educational, legal and regulatory, and environmental changes. Research is underway nationwide to identify proven strategies. Some promising approaches include:

- *Educational* – provide adult mentoring, conflict resolution, training in social skills, firearm safety, parenting centers, peer education and public information and education campaigns; promotion of social tolerance toward those of a particular race, ethnic group, religious or sexual orientation to reduce incidence of hate crimes.
- *Legal/Regulatory* – regulate use and access to weapons (weaponless schools, control of concealed weapons, restrictive licensing, appropriate sale of guns); regulate use and access to alcohol (appropriate sale of alcohol, prohibition or control of alcohol sales at events, training of servers); appropriate punishment in schools; dress codes.
- *Environmental* – modify the social environment (such as, home visitation, recreational activities, etc.); modify physical

environment (for example, improved lighting in risk areas, limited building entrances and exits, etc.).

Domestic Violence

Because a health care provider may be the first nonfamily member to whom an abused member turns for help, the provider has the unique opportunity and responsibility to intervene. One of the more promising strategies for preventing repeated injury, pregnancy complications, and the multiple medical and psychosocial consequences associated with ongoing domestic violence includes the early identification, appropriate treatment, documentation and referral of victims who seek health care. Successful implementation of this strategy will require:

- training and education of health care professionals on identifying, treating, documenting, and referring victims of violence;
- establishing and maintaining domestic violence policies and procedures for hospitals and diagnostic treatment centers that treat victims who seek health care;
- routinely screening all women patients for domestic violence in emergency, surgical, primary care, prenatal, pediatric, and mental health settings;
- including representatives of the health care system on local domestic violence coalitions and task forces; and
- educating the public about the public health impact of domestic violence aimed at changing attitudes and behaviors.

Other strategies include legal/regulatory approaches, such as, mandatory arrests for perpetrators of domestic violence and for violations of orders of protection.

Child Abuse

More than two decades of research and experimental programs have proven home visiting programs to be an effective strategy to prevent child abuse and neglect and improve the health and well-being of at-risk children and their families. Successful home visiting programs include:

- combining home visiting services with referral and follow-up to a broader array of community services;

- using home visitors who are well-trained and who receive good supervision and mentorship;
 - incorporating supportive, educational, and direct service goals into home visits;
 - targeting the family as a whole rather than the child as the focus of the home visit;
- ensuring home visiting services are of adequate intensity and duration to meet the needs of the child and the family; and,
 - working through an agency with the capacity to deliver or arrange for a wide range of services.

Examples of Multipronged Strategies for Reducing Violence

Business/Worksites

- Limit building entrances and exits.
- Provide adequate lighting for parking areas and walkways.
- Enforce employee drug free policies.
- Participate on local injury coalitions and task forces.
- Develop guidelines and policies for providing assistance to employees who are routine victims of domestic violence.

Colleges and Universities

- Conduct research into factors influencing violent behavior.
- Identify and evaluate violence-related prevention strategies.
- Establish campus-based programs to assist rape and domestic violence victims.

Community-Based Organizations

- Conduct adult mentoring and firearm safety training programs.
- Set up parenting centers.
- Provide home visitation and preschool programs, such as, Head Start.
- Provide recreational activities.
- Establish local coalitions and task forces.
- Develop linkages for referral and case management with other community-based organizations including domestic violence programs.

Government

- Conduct public information and education campaigns.
- Enforce mandatory arrests for perpetrators of domestic violence and for violation of orders of protection.
- Promote collaborative interagency agreements and protocols to improve responses to domestic violence and child abuse.
- Monitor violence-related injury rates among different subgroups of the population.
- Regulate the use and access to weapons.
- Enforce existing laws.

Health Care Providers

- Provide for the early identification, appropriate treatment, documentation, and referral of victims of violence.
- Provide age/gender-appropriate injury risk assessment for patients.
- Provide injury prevention messages as part of healthy behavior information.
- Treat modifiable conditions which predispose a patient to injury.
- Provide injury data to help guide local planning.
- Participate on local injury coalitions and task forces.

Media

- Portray violence and its consequences responsibly.
- Support the adoption of the V-chip to permit parental control over TV viewing.

Schools

- Provide conflict resolution training and peer education.
- Develop and enforce dress codes.
- Provide for appropriate punishment.
- Provide age-appropriate injury prevention and anger management education.
- Participate on local injury coalitions and task forces.
- Identify child abuse through heightened awareness and screening by school nurses.



Appendices

- A. Summary of New York State Public Health Priorities Regional Workshops
- B. Preventive Health Services Index
- C. Staff to the Public Health Priorities Committee

Appendix A

Summary of New York State Public Health Priorities Regional Workshops

Commissioner of Health Barbara DeBuono, M.D., M.P.H., asked the Public Health Council to establish New York's public health objectives for the next 10 years. She asked that the Council obtain input and expertise from a diverse cross section of New Yorkers. The Council appointed a special 19-member Public Health Priorities Committee to guide the prioritization process, ensure input from across the state, and construct the priorities plan. Development of this plan was based on input, not only from public health professionals, but also from other constituencies and members of the public because of the universal importance of this plan for all New Yorkers.

As part of the multiple avenues for input from the community, the Committee held six workshops across the state to allow New Yorkers the opportunity to express what they felt were serious public health issues, what they saw as the underlying causes of these problems, and what they saw as effective interventions. The workshops were held in Albany, Batavia, Binghamton, New York City, Stony Brook, and Syracuse during May 1996, with approximately 1,400 participants.

Outreach Efforts

Local coordinators were named for each regional workshop. These coordinators were selected for their knowledge of outreach techniques and of the communities in which they would be organizing workshops. They contacted key public health stakeholders in their regions in order to formulate an outreach plan tailored to that area. These stakeholders recommended other key players from the community. The intent was to get broad-based participation from the community.

Workshop Format

The workshops were designed to be interactive working sessions, rather than formal hearings. The full-day workshops began with an introduction to the priority setting process by the Public Health Priorities Committee and a brief overview of New York State data.

The workshop participants were then assigned to breakout rooms with an attempt to mix representatives of different program areas and counties within each room. The participants were distributed in this way in order to elicit a broad range of priorities from each room, as well as to foster cooperation and understanding among groups with little or no previous collaborative experience. Professional facilitators from Rockefeller College led the breakout work sessions. For the morning session, the groups were given lists of adverse health outcomes and health risk factors. The participants in each breakout room discussed the contents of each list and added adverse health outcomes and risk factors that they felt were problems in their communities. Participants were then asked to vote for their top 10 adverse health outcomes and top 10 risk factors. These votes were tallied to produce the top 10 on each list for each breakout room.

In the afternoon, the workgroups discussed successful interventions known to be addressing specific public health problems in their community, as well as innovative interventions that might be effective. In a final plenary session, each workgroup reported their top 10 adverse health outcomes and risk factors, and three successful and three innovative interventions that were discussed in their group.

Results

Across the six workshops, the following were among the most often identified as public health problems:

Risk Factors for Poor Health

- Alcohol and Substance Abuse
- Disintegration of Family/Community and Loss of Family Values
- Inadequate Preventive Services
- Lack of Access to Health Care
- Lack of Access to Health Education
- Lack of Adequate Health Insurance
- Physical Inactivity
- Poor Nutrition
- Poverty
- Tobacco
- Unsafe Sexual Behavior
- Violent/Abusive Behaviors

Adverse Health Outcomes

- Addictions
- Adolescent and Unintended Pregnancies
- Cancer (Especially Breast and Lung)
- Coronary Heart Disease
- Domestic and Community Violence, Including Sexual Violence/Abuse
- HIV/AIDS
- Overweight
- Poor Pregnancy Outcomes
- Sexually Transmitted Diseases
- Stress and Mental Illness; Depression, Anxiety

In the presentation of successful interventions, a few themes were repeated. The workshop participants stressed interventions addressing the problems of teen pregnancy and of tobacco use, as well as interventions using school-based clinics, public health nurses, and community health workers.

Appendix B

Preventive Health Services Index

The Preventive Health Services Index was developed to measure the degree to which New Yorkers are receiving preventive medical services. The Index is based on data from the Behavioral Risk Factor Surveillance System (BRFSS), birth certificate records, and the retrospective survey of kindergarteners for their two year old immunization status.

The screening tests available from the BRFSS were grouped into four age/sex categories: Males 18-49 years; Females 18-49 years; Males 50+ years; Females 50+ years. Screening tests included blood pressure and cholesterol screening for all age/sex groups; PAP test for both female groups, and mammogram and breast self examinations for females 50+ years of age. To be considered receiving appropriate services, an

individual must have received each of the preventive screening exams appropriate for the age/sex group. The inclusion of specific tests in this index is not intended to be a recommendation for medical practice guidelines by the Committee.

Early entry (first trimester) into prenatal care was the indicator used for pregnant women. The index for children was up-to-date immunization status at two years of age (four doses of diphtheria/tetanus/pertussis vaccine, three doses of oral polio vaccine, and one dose of measles/mumps/rubella vaccine).

Below is a summary of the preventive health services in the index by age/sex and population grouping.

Age	Male	Female
18-49 years	Cholesterol (last 5 years)	PAP (last 3 years)
	Blood Pressure (last 2 years)	Cholesterol (last 5 years)
		Blood Pressure (last 2 years)
50+ years	Cholesterol (last 5 years)	Mammogram and Breast Self Examination (last 2 years)
	Blood Pressure (last 2 years)	PAP test (last 3 years)
		Cholesterol (last 5 years)
		Blood Pressure (last 2 years)
Women Giving Birth	—	First Trimester Prenatal Care
Children	Fully immunized at 2 years of age	Fully immunized at 2 years of age

Appendix C

Staff to Public Health Priorities Committee

New York State Department of Health staff to Committee:

Susan Brown

Michelle Cravetz

Thomas DiCerbo

Jean C. Hanson

Patricia A. MacCubbin

Michael Medvesky

Arlene Obermayer

Perry F. Smith, M.D.

Kenneth C. Spitalny, M.D.

William N. Stasiuk, Ph.D.

Lois Youngblood

The Committee also recognizes the major contribution of the workshop regional coordinators:

Stan Altman, Ph.D.

James Campbell

Barbara Mummers

Deborah Nagin

Faith Schottenfeld

Ana Soto, M.D.

Carol Young, Ph.D.

and the many program staff from the New York State Department of Health, State University of New York at Albany School of Public Health and Rockefeller College, State University of New York at Stony Brook and other state agencies in the preparation of this report.