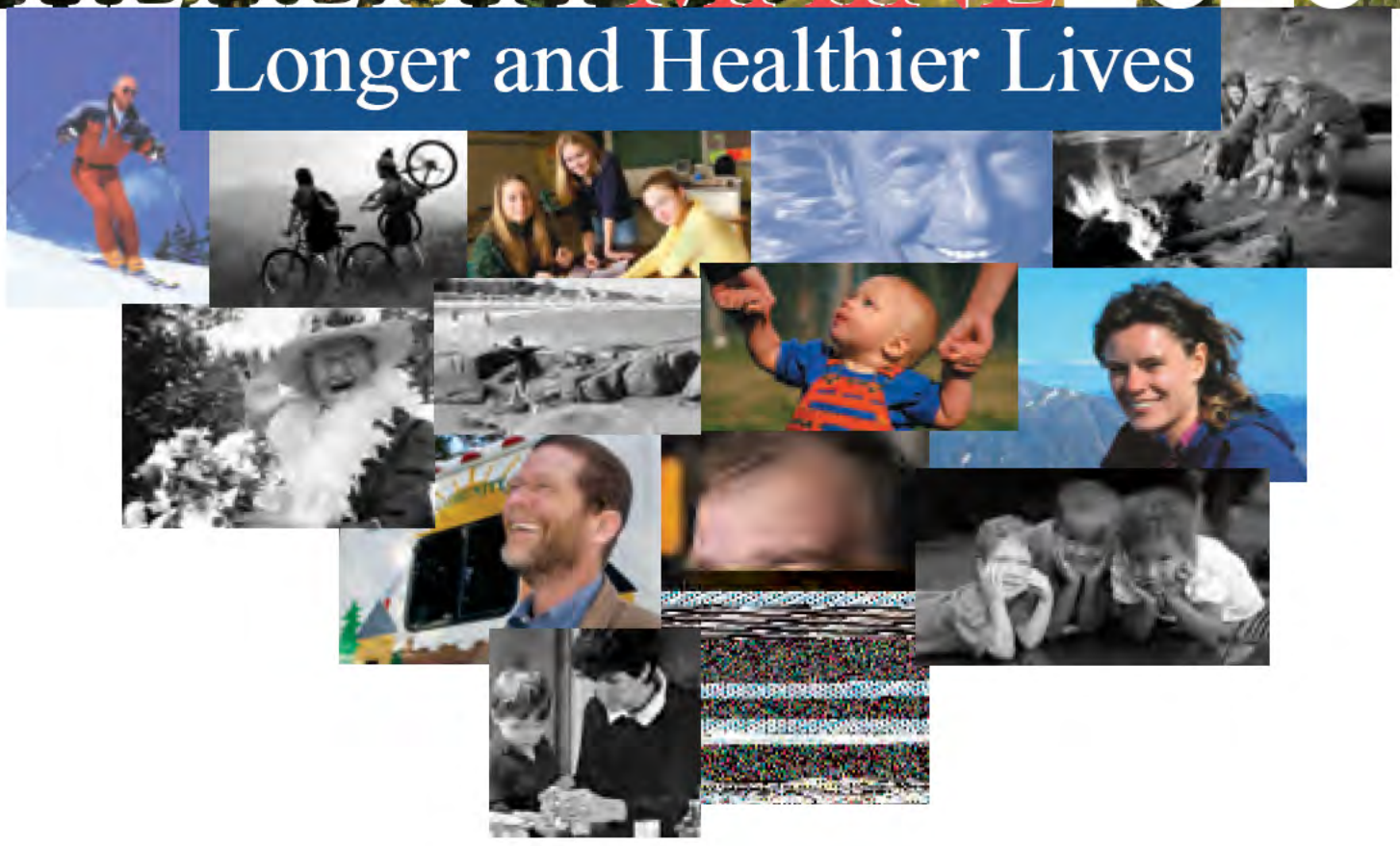
MAINE STATE LEGISLATURE

HEALTHY MAINE 2010

Longer and Healthier Lives



Bureau of Health, Maine Department of Human Services

“The committee defines the mission of public health as fulfilling society’s interest in assuring conditions in which people can be healthy.”

—Institute of Medicine

(Committee for the Study of the Future of Public Health. “The future of public health.” Washington, D.C.: National Academy Press, 1988.)

Healthy Maine 2010: Longer and Healthier Lives

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Goals, objectives, major narrative points,
and health disparity issues chosen by
over 500 Priority Area Work Group Members
and other statewide experts

December 2002

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Acknowledgments for Healthy Maine 2010

Hundreds of people from across Maine deserve a tremendous thank-you for their willingness to contribute toward and their dedicated efforts in creating *Healthy Maine 2010*. In fact, over 500 people participated in the creation of *Healthy Maine 2010*. Although it is impossible to fully thank everyone, there are several groups that deserve special recognition.

First, with any such inclusive project that brings together input from hundreds of people, there is usually one central person who makes it happen – one person who facilitates the process, routinely communicates with its members, and coordinates the pieces. That person is **Sharon Leahy-Lind**, formerly from the Edmund S. Muskie School of Public Service at the University of Southern Maine. Sharon's dedication to *Healthy Maine 2010* was critical to its development. She was the hub in a wheel with many spokes and she kept the wheel turning!

Second, each Priority Area Chapter in *Healthy Maine 2010: Longer and Healthier Lives* had at least one **work group** that met to confirm or revise the goal for each Priority Area, prioritize objectives, note major points that should be made in each chapter's narrative, and name populations that appear to be at risk for health disparities in Maine. Members gave this input either by attending a half-day meeting in Augusta or by participating in and communicating on the priority area Listservs created for this initiative. Work group members also then received draft copies of each chapter's text and objectives to review. Many spent time providing us with very useful edit suggestions.

Third, **Work Group Leaders** provided leadership to each Priority Area. They gave important input to the process for creating *Healthy Maine 2010: Longer and Healthier Lives*, they led the work group meetings, they spent considerable time providing edit suggestions to several drafts of the chapters; several assisted in writing the chapters; they helped or determined how objectives were to be measured; they assisted in or set the targets; and they gave important ongoing input. Some also reviewed and provided edit suggestions to *Healthy Maine 2010: Opportunities for All*.

Fourth, in addition to the work Sharon Leahy-Lind did, other staff from the **Institute for Public Sector Innovation (IPSI) at the University of Southern Maine's Edmund S. Muskie School of Public Service** provided support by arranging logistics for, facilitating, and recording the outcomes of the ten work group meetings during the winter and spring of 2001. Melanie LaPierre created the work group membership database. Janice Overlock, Karen Lucarelli, and Julie Gant coordinated work group meetings and logistics. Kay Dutram, Stirling Kendall, and Ruth Thomas facilitated the meetings. Janice Overlock and Jane Peatfield recorded meetings and managed work group membership information. Janice Overlock also assisted Sharon throughout the project. George Shaler and Elizabeth Martin assisted with some data gathering and interviews. Finally, Susan Ebersten provided the flexibility in scheduling and allocated the resources needed to assist the Bureau of Health with this two-year multiphase project.

Fifth, **experts from around the State** assisted greatly in creating *Healthy Maine 2010: Opportunities for All*. They provided important perspectives and suggestions on addressing health disparities in Maine and spent considerable time providing edit suggestions to this section. Their names are found in that volume.

Sixth, the **CD&M Communications team** pulled together the many sections for this report, proofread, and created a layout and design that most effectively helps communicate the *Healthy Maine 2010* goals and objectives.

Seventh, many **staff from the Bureau of Health** spent countless hours gathering data and information for the objectives and the call-outs, setting targets, and providing edit suggestions to various drafts of the chapters. Particularly noted are the efforts of Dom Lemieux from the Bureau's Office of Data, Research, and Vital Statistics who spent hours converting data from the 1990 base population to the new 2000 census population base; Alice Rohman from the same office who spent hours gathering and organizing data; Judith Graber from the Bureau's Behavioral Risk Factor Surveillance System who gathered and analyzed data from BRFSS and thoroughly reviewed the many related charts; and Elaine Lovejoy from Bureau of Health Administration who provided much-needed technical support and an unwavering commitment throughout the entire two-year project.

I would also like to thank Lani Graham, MD, MPH, and the **Bureau of Health's Senior Management Team** for maintaining the Bureau of Health during my maternity leave late spring and summer of 2002. Knowing the Bureau of Health was in great hands with Dr. Graham as Acting Director and its Senior Management Team at the helm, I was able to enjoy this precious time with my children, finish writing, editing, and pulling together *Healthy Maine 2010: Longer and Healthier Lives*, as well as write, edit, and pull together *Healthy Maine 2010: Opportunities for All*.

Finally, I would like to extend my sincerest gratitude to Governor Angus S. King, Jr. and Commissioner Kevin W. Concannon, who have shown great support for public health the past eight years, and whose efforts will make it possible for many more Maine people to have the opportunity to live longer and healthier lives.

Dora Anne Mills, MD, MPH

Introduction

TWO OVERARCHING GOALS OF *HEALTHY MAINE 2010*:

1. **Increase quality and years of healthy life.**
2. **Eliminate health disparities.**

Rooted in science and cultivated by the input of many, *Healthy Maine 2010* is a story with many storytellers. It is a portrait of the health issues we as Maine people and community face, and a map of the journey we would like to embark on throughout this decade. *Healthy Maine 2010's* journey has two major destinations: an increase in quality and years of healthy life and an elimination of health disparities in Maine. In other words, its overall goal is that everyone in Maine has the opportunity to live longer and healthier lives. While *Healthy Maine 2010* is meant to convey Maine's public health priorities for this decade, it is also meant to be a resource for public health information and a tool for implementing public health interventions.

Although *Healthy Maine 2010* focuses on health issues, we recognize that health is impacted by and, in turn, impacts a confluence of social factors. For instance, our systems of health, economy, environment, education, infrastructure such as transportation, and politics are all systems that cover a society like fibers of a blanket. When one fiber is unraveled or torn, the other fibers are also affected. So, even though the scope of this book is health, we recognize the influence all these systems exert on each other. Therefore, I hope this book also helps to promote improved collaboration between people and organizations across all systems to improve the overall health of Maine people and communities.

TWO VOLUMES OF *HEALTHY MAINE 2010*:

1. ***Healthy Maine 2010: Longer and Healthier Lives***
   Goals and objectives for each of 10 health priority areas
2. ***Healthy Maine 2010: Opportunities for All***
   A sketch of health disparities faced by some populations in Maine

Ultimately, I hope we are inspired to become involved or continue our commitment to public health in Maine, especially in supporting community-based public health. As a practicing physician in my hometown, I often noticed that although the time spent with patients in my office was an influence on their health, there were so many other factors affecting their health that I felt I had little influence over. For instance, even though my counseling on the harmful effects of tobacco consumption had some effect, it appeared that if a child's parents smoked, their friends smoked, public places they frequented allowed smoking, and they were not busily engaged in healthy extracurricular activities such as sports, these other influences often dominated. However, a small diverse group of local residents had started a coalition to address the health of the community, and some health care

providers had started some secondary prevention initiatives. It soon became apparent that they were starting to change the cultural norms and factors in the community environment that ran counter to a healthy life. Many of the successes of public health interventions in Franklin County are well documented. Today, they are now one of many such efforts around Maine. These efforts show that when there is commitment and collaboration to address the health of the community, especially when involving a diverse group including those from the public health and medical sectors, we can all live in a healthier community and have the opportunity to live longer and healthier lives.

Indeed, whether you are a health or public health professional, a policymaker, a stakeholder, or you are a concerned citizen who is simply interested, I hope that as you read *Healthy Maine 2010* you are motivated to join us in this journey to assure that all Maine people have the opportunity to live longer and healthier lives.

Dora Anne Mills, MD, MPH

It seems that health care has been near or at the top of every state and national candidate's priority list the last few election cycles. How does *Healthy Maine 2010* help them?

Although the immediate concerns on elected officials' plates often center around controlling health care costs and improving access to care, *Healthy Maine 2010* provides guidance on how Maine people and communities can become healthier so that all of us can have the opportunity to live longer and healthier lives. Many of its goals and objectives have policy implications for elected officials to consider.

Using *Healthy Maine 2010: Longer and Healthier Lives*

EACH CHAPTER CONTAINS:

1. **Goal Statement:**
   This simple statement summarizes the overall purpose of the focus area.

2. **Overview:**
   The overview addresses the overall nature of the focus area, provides key trends and developments in the area, and gives other pertinent information.

Do you have an idea or feedback on *Healthy Maine 2010*?

You may provide feedback and ideas through our Web site, www.MainePublicHealth.org.

3. **Strategies:**
   This section is a list of sample strategies that can be implemented to address the challenges posed by that particular focus area. Strategies are organized in order of primary to secondary to tertiary prevention strategies.

4. **Health Disparities:**
   Using information from *Healthy People 2010*, this section is a list of populations that are nationally known to face disparities in this particular focus area.

5. **Objectives:**
   This section provides measurable outcomes to help achieve the goal for the particular focus area. Developmental objectives are currently not measurable, and will be dropped if they are still not measurable by 2005. The numbers beside most objective titles refer to the *Healthy People 2010* comparable objective. Objective titles without a number are Maine-specific objectives.

Objectives are generally listed in order of the type of prevention they are focused on: primary to secondary to tertiary prevention. Baseline, target, and available trend data for each objective are graphically represented by charts.

ABOUT THE CHARTS

Please note that curved lines (rather than straight lines) are used in a few of the charts to connect trend data points. However, the use of curved lines is not standard for non-continuous data such as BRFSS data. In the few instances in which curved lines are used for such data, we were unable to correct these to straight lines, but we did want to make a note of this nonstandard representation of the data.

BIOGRAPHICAL SKETCHES

Healthy Maine 2010: Longer and Healthier Lives contains four biographical sketches that describe how individual Mainers grabbed a health issue they saw in their community and took action. One helped build support for a community facing prejudice and an epidemic (Frannie Peabody), another helped pass legislation to break down barriers to accessing care (Joe Mayo), another formed coalitions in his community to address a variety of health issues (Dr. Cam Bopp), or they took a leadership role in their community to build support for a specific approach to a health issue (Rachel Thompson and Sadie Lloyd). Each of these Mainers, and many others, have made a difference in the health of others. We hope these sketches will inspire all of us to use the data and information contained in this book to help improve the health of others as well.

HOW WILL PROGRESS BE COMMUNICATED ON *HEALTHY MAINE 2010*?

Resources permitting, we plan annual report cards reporting on progress made with the objectives. Additionally, we plan on focusing each report card on a particular factor leading to health disparities. For instance, the 2003 report card may focus on gender, with a report on objectives with gender analysis on pertinent ones.

SOURCES OF DATA IN *HEALTHY MAINE 2010*

***Healthy Maine 2010* was created in a very inclusive manner with the assistance of over 500 people from across the State. As a result, you will notice that many perspectives are conveyed, not all of them necessarily representing the opinions of involved State agencies, other organizations, or participants.**

National Data: Unless otherwise noted, all national data contained in *Healthy Maine 2010* is from *Healthy People 2010*.

> US Department of Health and Human Services. *Healthy People 2010*. 2nd ed. With Understanding and Improving Health and Objectives for Improving Health. 2 vols. Washington, DC: US Government Printing Office, November 2000. For more information contact: http://www.health.gov/healthypeople or call 1-800-367-4725.

Maine Data: Unless otherwise noted, all Maine health data contained in *Healthy Maine 2010* is from the Bureau of Health, Maine Department of Human Services.

How Did September 11, 2001 Influence *Healthy Maine 2010*?

Halfway through the creation of *Healthy Maine 2010*, the entire project was put on hold for several months after September 11, 2001, so we at the Bureau of Health could pour our efforts into preparing Maine for potential attacks with weapons of mass destruction and dealing with the attacks nationally from anthrax. This work taught us much about our public health systems in Maine.

We learned we lack adequate communication systems to provide timely and critical information to health professionals and the public. Although our aviation system has the capacity to communicate with all airports and airborne aircraft, we lack analogous systems to communicate with hospitals and health care providers.

We learned our passive disease reporting system does not provide us with timely information and is not an adequate barometer on emerging health issues we may be facing.

We learned we need additional collaborations between medical and public health communities at the local level – with connections to the Bureau of Health such as identified local medical public health professionals to provide a leadership role during public health situations. Fortunately, Federal funds are assisting us in addressing these challenges.

However, we also learned more about the power of collaboration. Despite the above gaps and limitations that badly need fixing, we were also able to adequately address the anthrax attacks because of critical collaborations with other agencies including the Maine Emergency Management Agency, the Maine Departments of Public Safety and Education, Maine's hospitals and other health care providers, county and local emergency management agencies, numerous public health professionals, and many others.

When *Healthy Maine 2010* was resumed, surprisingly few updates were necessary to add to the original text written pre-September 11, since it already contained information on addressing gaps in our public health system – gaps we simply learned about firsthand during the months after September 11.

What Is *Healthy People 2010*?

Healthy People 2010 is a comprehensive, nationwide, health promotion and disease prevention agenda. Grounded in science and built through public consensus, Healthy People 2010 is designed to measure progress toward improving the health of all people in the United States during the first decade of the twenty-first century.

How does *Healthy People 2010* relate to *Healthy Maine 2010*?

Healthy Maine 2010 uses *Healthy People 2010* as the template for its formation. For instance, all 28 of *Healthy People 2010*'s priority areas were used and merged to create the 10 *Healthy Maine 2010*'s priority areas. *Healthy Maine 2010* work groups used the 467 objectives from *Healthy People 2010* to choose Maine's objectives. Only occasionally were Maine-specific objectives created.

A similar process was also used to create both sets of objectives. Just as Healthy People 2010 solicited input from a wide range of people, so did *Healthy Maine 2010*. For more information or access to *Healthy People 2010*'s documents, visit http://www.health.gov/healthypeople/ or call 1-800-367-4725.

What Are the Differences Between Public Health and Medicine?

The ancient Greeks believed that Asclepios, the god of medicine, had two daughters: Hygeia, who was responsible for prevention; and Panacea, who was responsible for treatment and cure. To some degree, these two daughters represent the differences between public health and medicine.

Medicine is traditionally mostly:

- Focused on individuals;
- Illness-driven; and
- Focused on tertiary prevention.

Public Health is traditionally mostly:

- Focused on populations;
- Prevention-oriented; and
- Focused on primary and secondary prevention.

Prior to the twentieth century, medicine and public health were one field. A physician was not only responsible for the care of individual patients, but was also responsible for the the health of the community. For instance, 100 years ago Maine towns had local boards of health headed by local Health Officers, who were mostly physicians. The board of health addressed such issues as quarantining, clean water, and animal hygiene.

PUBLIC HEALTH APPROACH TO HEALTH PROBLEMS:

The public health approach to address health problems involves spending our shared health resources on those interventions that are cost-effective. The goal is to maximize health gain from available resources.

For most health issues, a public health approach involves:

1. **Identifying and addressing the underlying risk factors and priority populations;**
2. **Assessing cost and effectiveness of interventions;**
3. **Implementing policies for rationing interventions and ensuring that limited resources are spent in identified high priority areas; and**
4. **Assuring quality of service delivery.**

***World Health Report 2000*, World Health Organization, page 58.**

Over the last century, medicine and public health grew apart, especially as medicine became more illness-focused because of modern advances in disease treatment. Today, we hope that the two disciplines grow closer together, especially since without more public health and medicine collaboration, we cannot effectively address many of the health issues that plague us.

One specific strategy that is being implemented across Maine to help bridge these two disciplines is the hiring (through Federal bioterrorism funds) of a regional Medical Officer for each of six Emergency Medical Services regions of the State. These practicing primary care physicians will assist in preparing the area for public health emergencies, as well as acting as a liaison between the regional public health and medical communities. Working with the Medical Officers will be Regional Nurse Epidemiologists, who will focus on improving disease surveillance.

Types of Prevention

"Health has to be a key element in working toward a common future. We cannot achieve the goals of sustainable development in the face of widespread ill health, particularly among poor people. Improving healthy life is not only a desirable outcome of sustainable development, it is also a powerful and undervalued means of achieving it. Poor people who are sick cannot earn and cannot learn."
Gro Harlem Brundtland, MD, Director-General, World Health Organization, July 2002

A multifaceted approach is needed to effectively address health issues we are challenged with. The framework public health uses for thinking of strategies for addressing health issues is the primary, secondary, and tertiary prevention framework.

Primary prevention strategies are aimed mostly at a broad population with the main objective of preventing risks. Using the example of tobacco addiction, primary prevention strategies include those that create a cultural change so that everyone lives in a culture that supports a tobacco-free life. Specific examples include creating smoke-free places and eliminating tobacco advertising. Primary prevention strategies also includes educating all people about the hazards of tobacco addiction.

Secondary prevention strategies are aimed mostly at those at risk for a disease or health issue, with the main objective of reducing risks. Examples include tobacco outreach and education efforts aimed at high-risk youth, such as any youth living at low socioeconomic status and Native American youth.

Tertiary prevention strategies are aimed mostly at those with a disease or health issue, with the main objective of reducing disease burden. Examples include strategies to help smokers quit.

	Objectives	Priority Population
Primary Prevention:	Risk Prevention	General public
Secondary Prevention:	Risk Reduction	Those at risk for disease
Tertiary Prevention:	Disease Burden Reduction	Those with disease

How *Healthy Maine 2010* Fits in with Other Books of Indicators

Health Care Performance Council

The Maine Development Foundation is convening and providing administration to this Council to identify and track indicators that measure Maine's health care delivery system. They include identifiers to measure participations in the health care delivery system, quality of health care delivered, and the financial cost that our health care system incurs. More information can be obtained by contacting Katie Fullam Harris at (207) 622-6345 or http://www.mdf.org.

Maine Kids Count Annual Data Book

The Maine Children's Alliance gathers and presents State and Federal health, socioeconomic, and education data pertaining to children and presents the data at the State and county levels. Each year's book is usually available in January or February. This year's is the seventh. For more information contact: (207) 626-3302 or http://www.mekids.org.

What is the Maine Turning Point Project and how does it relate to *Healthy Maine 2010*?

Maine Turning Point Project (TPP) is a collaborative project convened by the Maine Center for Public Health, Medical Care Development, and the Maine Bureau of Health in 1999 to build public health infrastructure in Maine. The planning phase was conducted from 1999–2001. The project is currently in the implementation phase, which is housed in the Maine Center for Public Health.

Whereas TPP plans *how* public health can be conducted in Maine, *Healthy Maine 2010* gives us a map of *what* are priorities of public health issues that can be addressed. TPP gives us form, *Healthy Maine 2010* content.

More information can be obtained by contacting the Maine Center for Public Health at (207) 629-9272 or http://www.mcph.org.

Measures of Growth

The Maine Development Foundation prepares an annual report for the Maine Economic Growth Council on Maine's economic indicators. The 2002 report provides updates on 60 indicators, including those on the economy, community, and environment. It is the eighth annual report. Copies can be obtained by contacting (207) 622-6345 or http://www.mdf.org.

Maine Marks

The Maine Children's Cabinet, which is composed of State departments directly related to children and families – the Departments of Corrections, Education, Human Services, Behavioral and Developmental Services, and Public Safety – initiated this effort in 1998 to identify 80 indicators that track the well-being of Maine children, families, and communities. Ownership and accountability for the Maine Marks indicators are with the State agencies that are members of the Children's Cabinet. Coordination and tracking is done through the Muskie School of Public Service, University of Southern Maine. More information can be obtained by contacting http://www.mainemarks.org.

Healthy Maine 2000

This is a set of health goals and objectives for Maine for the year 2000 and the predecessor of *Healthy Maine 2010*. Originally printed in 1993, a midcourse review was printed in 1997, and a final report, *Healthy Maine 2000: A Decade in Review*, in October 2000. For copies of *Healthy Maine 2000: A Decade in Review*, call the Bureau of Health at (207) 287-8016.

Access to Quality Health Care, Disease Prevention, and Health Promotion

GOAL

Improve access to comprehensive, high-quality health care services and effective prevention interventions.

OVERVIEW

If you live in a European country, Canada, Japan, or most any other developed nation, chances are you live in a country that provides its citizens basic access to public education as well as to health care and prevention interventions, the two major components of a comprehensive health system. The United States is fairly unique among developed countries in that we share this principle for elementary and secondary education, but we do not share this same principle when applied to our health system.

TEN INTERVENTIONS WITH SOME OF THE LARGEST POTENTIAL IMPACT ON HEALTH OUTCOMES:

- **Family planning**
- **Maternal health and safe motherhood interventions**
- **School health interventions**
- **Integrated management of childhood illnesses**
- **HIV/AIDS prevention**
- **Treatment of sexually transmitted diseases**
- **Immunization of children and adults**
- **Tobacco control**
- **Early screening and treatment of non-communicable diseases and injuries**
- **Directly observed treatment of tuberculosis**

All of these ten interventions involve population-based interventions requiring a public health system as well as individual-based interventions requiring a health care delivery system.

(World Development Report – Investing in Health. Washington, DC, The World Bank, 1993.)

Indeed, among the three major measurements to gauge a health system – cost, quality, and access – the United States ranks poorly compared to other developed countries for its health system's accessibility. *The World Health Report 2000* (World Health Organization, 2000), a study comparing health systems in nearly 200 countries, shows the US is by far the most expensive country for health costs, yet ranks poorly in terms of access to its health system. In part as a result of this poor access, the US ranks only moderately when it comes to the quality of health outcomes (see insert on next page).

Access to a system of high quality health care and prevention is complex, marked by issues of definition and measurement. First, *defining* access means taking into account our entire understanding of how health is created. Therefore, it is difficult to concisely define what access is. However, we can describe it. People who experience good access to health care are able to obtain needed, appropriate, and high quality evidence-based health services in a timely manner without

financial, structural, or personal barriers that limit their access. For example, they have adequate health insurance and an adequate number of health care providers and facilities nearby; transportation is available to them; they are informed about how to enter and maneuver through the health care system, and do so without discrimination or barriers due to their age, disability status, gender, race, ethnicity, sexual orientation, income or education level, occupation, or other life situation; and health care is conducted with sensitivity toward their culture and in a language they understand.

People who experience good access to a comprehensive, high quality health system also experience few financial, structural, and personal barriers to prevention and health promotion interventions. As a result, they are fully informed about choices that impact their health and are active participants in maintaining or improving their health. They live in a healthy community – one that has an identity and vision for the future, knows how to solve and prevent problems, and provides an environment that supports healthy choices such as walkable neighborhoods, healthy food choices, smoke-free environments, and protection from exposure to unnecessary toxic chemicals.

Second, there are issues of *measuring* access. Access to health care and prevention is not currently fully measured by many of our data systems. For instance, one common measurement of access to health care is the percent of a population who have health insurance. This statistic does not fully measure access to health care, yet we lack many other good measurements. So, for example, there is no ongoing Statewide system that tracks the percentage of people who lack dental insurance, who are underinsured, or lack access to health care because of transportation, cultural, language, informational, or structural barriers.

HOW DOES THE US RANK RELATIVE TO OTHER COUNTRIES?

COST:

#1 **The US ranks first in the world for dollars spent per capita for health, spending almost $3,800 per person per year.**

The second leading country only spends $2,600.

The average of the nearly 200 countries studied is $412 per capita per year.

The average of the top 10 countries for disability-adjusted life expectancy is $1,700 per capita per year.

#1 **The US also ranks first for total expenditure on health as a percent of gross domestic product.**

ACCESS:

#55 **The US ranks 55th for fairness of financial contribution to health systems. This ranking reflects how equitably people in a country contribute to health costs; with the US ranking poorly, in part, since a large proportion of households are at risk of impoverishment because of high levels of health expenditures.**

QUALITY:

#24 **Health attainment in the US, mostly measured as disability-adjusted life expectancy, ranks only 24th.**

#32 **The US ranks 32nd for equality of child survival because so many children in the US, particularly those living in poverty or who are minorities, do not have the same chances of survival as other children.**

As an example, national and State statistics show that close to 100% of people over the age of 64 have health insurance, typically Medicare, which would seem to indicate our seniors have excellent access to health care. Yet, we know that Medicare Insurance does not provide outpatient drug coverage as part of its standard plan. Because this is also the population most likely to need outpatient prescription drugs and to live with limited

incomes, this lack of pharmaceutical coverage is a major health care access issue for them. Yet, the statistics we depend on to measure access do not reflect this.

Improving access to and participation in health care and public health improves everyone's chances of living longer healthier lives, especially since we are all vulnerable to facing barriers to our health system. This makes access the one priority area that transcends and cuts across all others.

TEN ESSENTIAL PUBLIC HEALTH SERVICES:

There are ten essential public health services considered to be necessary for a population to have access to prevention. A comprehensive public health system needs to:

- **Monitor health status to identify community health problems**
- **Diagnose and investigate health problems and health hazards in the community**
- **Inform, educate, and empower people about health issues**
- **Mobilize community partnerships to identify and solve health problems**
- **Develop policies and plans that support individual and community health efforts**
- **Enforce laws and regulations that protect health and ensure safety**
- **Link people to needed personal health services and assure the provision of health care when otherwise unavailable**
- **Assure a competent public health and personal health care workforce**
- **Evaluate effectiveness, accessibility, and quality of personal and population-based health services**
- **Research for new insights and innovative solutions**

Source: Institute of Medicine Report, 1988.

PRIMARY

SECONDARY

TERTIARY

Strategies

Building Community Capacity: Develop initiatives to improve the abilities of people and organizations in every community to come together to plan and address health and other related issues such as the social determinants of health. An example is developing local attention to health, and where there is capacity, a local comprehensive community health initiative such as a Healthy Communities Coalition.

Building State and Local Public Health Capacity: Develop initiatives that improve the abilities of the State and communities to plan and address public health by assuring that the Ten Essential Public Health Services (see insert) are available for a regional geographical area and population.

Workforce Development: Assuring that populations have a trained public health and health care workforce is critical to improving access to health and prevention.

Access to Community Preventive Interventions: Fluoridation of drinking water, dental sealants in schools, community health screenings, and comprehensive school health education are some examples.

Access to Health and Dental Insurance: Initiatives that improve access to health and dental insurance are some examples.

Reducing Barriers to High Quality Care: Reducing barriers to health care such as financial barriers (having no health insurance or being underinsured), structural barriers (having no health care facilities or professionals nearby), and personal barriers (informational, prejudices experienced by sexual minorities, cultural differences, language differences, or environmental challenges for people with disabilities) are all strategies to assure improved access to care.

Improving Quality of Health Systems: Access to a *poor* quality system does not necessarily improve health status. Therefore, it is important to evaluate and improve the quality of our health systems through such strategies as tracking immunization levels and childhood lead screening rates.

Health Disparities

(Populations at risk for experiencing barriers to accessing health care and prevention, based on national data in *Healthy People 2010*)

- **Young Adults** (less likely to have a usual source of care; more likely to lack health insurance)
- **Elders** (less likely to have access to providers who can address their special needs; about 98% have Medicare Insurance, but this does not cover most outpatient services such as prescription drugs; more susceptible to medical errors and adverse medical events)
- **People with Disabilities** (face facilities that are not easily accessible; face lack of understanding from health care providers; more likely to face difficulties in obtaining ongoing appropriate health care; less likely to have effective prevention efforts focused on them)
- **Men** (less likely to seek health care, including prevention services; more likely to be uninsured)
- **Women** (longer lifespan with more multiple chronic diseases; more likely to be caregivers)
- **Uninsured and Underinsured Persons** (less likely to have a usual source of care)
- **Ethnic and Racial Minorities** (less likely to have access to culturally and linguistically appropriate prevention and clinical services; less likely to have a usual source of care; more likely to lack health insurance and untrained health care providers; more likely to have untreated dental caries; less likely to have research on health issues faced by them)
- **People Living in Rural Areas** (more likely to lack transportation; more likely to have health services located many miles from their home or work; less likely to access higher education, social services, livable wage jobs, adequate housing, and other community support)
- **Sexual Orientation Minorities** (less likely to have services that are sensitive to their needs)
- **People with Low Socioeconomic Status** (high rates of uninsurance – double the rate for those below the poverty level; less likely to have a usual source of care; more likely to have dental disease such as untreated caries; less likely to have effective prevention efforts focused on them)

"Health is the product of multiple levels of influence. These include genetic and biophysiological processes, individual behaviors, and the context within which people live – the sociocultural environment. A multilevel approach to community health requires us to take into consideration, and act upon, the way that the sociocultural environment affects health."

http://www.thecommunityguide.org

Objectives

Objective numbers are *Healthy People 2010* objective numbers.

- **7–10 (Developmental) Increase the number of communities in Maine that have a community health promotion program that addresses multiple *Healthy Maine 2010* Focus Areas.**

Maine will identify criteria and surveillance systems to assess, at minimum, the number of service center communities with a community health promotion program.

Community health promotion programs include all of the following: involved community participation with representatives from at least three of the following community sectors: government, education, business, faith organizations, health care, media, voluntary agencies, and the public; community assessment, guided by a community assessment and planning model, to determine community health problems, resources, perceptions, and priorities for action; targeted and measurable objectives to address any of the following: health outcomes, risk factors, public awareness, services, protection; comprehensive, multifaceted, culturally relevant interventions that have multiple targets for change; and monitoring and evaluation processes to determine whether the objectives are reached.

Towns that meet Maine's definition of a service center community all have the potential to develop a community health promotion program, such as a Healthy Communities Coalition, and to link some of their goals to regional and State health plan goals. The State Planning Office has identified 95 service center communities throughout Maine that are area hubs which people live in or travel to for work, recreation, shopping, or obtaining services. In addition, all Maine communities can improve their

MAINE HEALTHY COMMUNITIES INITIATIVES

Name of Initiative	General Location
Micmacs On The Move	Aroostook Band of Micmacs
Southern Kennebec Healthy Communities	Augusta
Partnerships for Healthy Communities	Bangor
Healthy Communities Lake Region	Bridgton
Town of Bucksport Health Advisory Committee	Bucksport
Healthy Island Project	Deer Isle/Stonington
Union River Healthy Community Coalition	Ellsworth
Fairfield PATCH	Fairfield
Healthy Community Coalition	Farmington
St. John Valley PATCH	Fort Kent
Schoodic Healthy Communities Coalition	Gouldsboro
North Country Healthy Communities	Greenville
Vital Pathways	Houlton
Prevention Coalition	Indian Island/Penobscot Nation
Healthy Acadia	Mt. Desert Island
Healthy Community Coalition	Parsonsfield Area
Voices in Action: Healthy Communities of Sebasticook Valley	Pittsfield
Greater Portland Partners for Health	Portland
River Valley Healthy Communities Coalition	Rumford
Waterville PATCH	Waterville
Healthy Futures	Winthrop
Community Wellness Coalition	York

(These are community health planning initiatives known to the Bureau of Health. For more information, contact the Community Health Program in the Bureau of Health.)

capacity to bring people and organizations together to look at local health issues. Maine communities can also link with their Healthy Maine Partnerships (funded by the Fund for a Healthy Maine, Maine's share of the National Tobacco Settlement), which cover chronic disease prevention, in whose service areas nearly all Maine communities are covered.

- **(Developmental) 23–12 Increase the number of geographic areas in Maine that have a health improvement plan linked to *Healthy Maine 2010* goals and objectives.**

  Maine is one of the few states without a statewide system of local public health departments. Therefore, one of Maine's challenges is to build the capacity to assure that the 10 essential public health services are achieved for all geographic regions and all of Maine's populations. Maine Turning Point Project, a multi-year initiative funded by Robert Wood Johnson and housed at the Maine Center for Public Health, is looking at how best to address this challenge and working with the Bureau of Health and other public health partners to strengthen public health infrastructure.

HEALTHY MAINE PARTNERSHIPS:

Partnership For A Healthy Community, Presque Isle
Healthy Horizons, Waterville
ACCESS Health, Brunswick
Oxford Hills Coalition, Norway
PROJECT NOW: Northern Oxford Wellness, Rumford
St. John Valley Partnership, Madawaska
St. Croix Valley Healthy Communities, Calais
Choose To Be Healthy, York
S.P.R.I.N.T for Life, Lincoln
Power of Prevention Community Health Partnership Coalition, Van Buren
Healthy Androscoggin, Lewiston
Getting Healthy, Gardiner
Partners for Healthier Communities, Sanford
Downeast Healthy Tomorrows, Lubec
Katahdin Area Partnership, Millinocket
Healthy Acadia, Bar Harbor
TLC for Life Coalition, Newcastle
Healthy Community Coalition, Wilton
Healthy Peninsula Project, Blue Hill
Coastal Hancock Healthy Communities, Ellsworth
Knox County Coalition Against Tobacco (KCCAT), Camden
Coastal Healthy Communities Coalition, Biddeford
Healthy Living, Pittsfield
Communities Promoting Health, Portland
BodySmart, Bridgton
Somerset Heart Health, Skowhegan
Piscataquis Public Health Council, Dover-Foxcroft
Bangor Region Partners for Health, Bangor
Healthy Living Project, Belfast
STOP, Houlton
Campaign for a Healthy Portland, Portland
(All 31 are funded by tobacco settlement dollars.)

MAINE CENTER FOR PUBLIC HEALTH

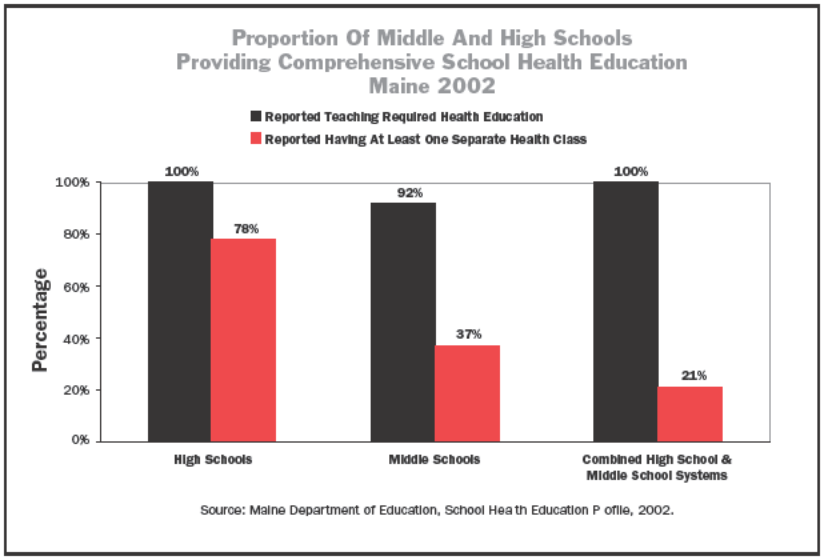
As a result of a recommendation from the Health Care Reform Commission, the Maine State Legislature established the Maine Center for Public Health in 1996 as a private nonprofit organization "to improve the health of Maine citizens through an organized program of policy analysis, education/training, technical assistance, and research." Founded in 1998 as a public-private collaborative, the Center works in partnership with State agencies, Statewide organizations, and community-based organizations.

It is important that all Maine residents have access to the benefits of a well-functioning public health system. Many became acutely aware of the critical importance of building the capacity to respond to public health challenges at the local and state levels during the national anthrax attacks in the fall of 2001, following the September 11 attacks. Maine experienced over 500 possible anthrax incidents that required processing and testing of suspicious substances. All substances tested were negative for anthrax and no one in Maine was diagnosed with the infection. However, the ability to respond to these attacks was limited. For instance, the capacity for local and Statewide health communication and information dissemination, especially to and from health care providers and emergency response agencies, was overcapacity for weeks. Fortunately, some Federal funds are assisting in helping Maine build local and State public health capacity to address challenges posed by public health emergencies.

For related information, see Infectious Disease Chapter objective: "Increase the number of geographic areas in Maine that provide comprehensive epidemiology services to support essential public health services."

- **7–2 (Developmental) Increase the proportion of middle, junior high, and senior high schools that provide comprehensive health education.**

The School Health Education Profile was administered in the spring of 2002 to middle and high school principals with an 86% response rate. Data are reported separately for stand-alone high schools, stand-alone middle schools, and combined high school/middle schools. This survey was a step in developing mechanisms to measure this objective.



Comprehensive School Health Education (CSHE) includes curriculum, instruction, and assessment that is sequential from kindergarten through high school and that meets the health education standards outlined in the Maine Learning Results. CSHE addresses the physical, mental, emotional, and social aspects of health and provides knowledge and skills that promote and enhance lifelong healthy behaviors. CSHE is also most effective when delivered in the context of a coordinated school health program.

- **21–14 (Developmental) Increase the geographic areas in Maine that have comprehensive oral health initiatives that include such components as school-linked oral health programs, community water fluoridation, and nonprofit dental centers.**

Current information indicates our Healthy Maine baseline is about 25% of the State that have such initiatives.

Oral health is part of our total health, and untreated oral disease has many serious negative economic and social consequences, as well as adverse impacts on physical health. However, there is no ongoing Statewide surveillance system to monitor oral health status. For instance, oral health conditions, other than oral cancer, are not reportable and there is no system such as our hospital discharge data system to track the incidence or prevalence of dental diseases.

Although there is no mechanism to monitor oral health status, we can measure some of the infrastructure necessary to improve oral health. For instance, we can count and track the number of community interventions that increase access to dental care, fluoridation, sealants in children, and other population-based interventions that are critical to improving oral health status.

The disease burden of dental caries is especially noteworthy because it is largely preventable through community-based initiatives that optimize the use of fluoride and dental sealants, which in combination are often referred to as an "immunization" against tooth decay for children.

What is the current state of some of these population-based interventions in Maine? Currently, there are only 13 nonprofit dental centers throughout the State, but with new State and private funding, three additional ones are expected to open by the end of 2002. There are also some nonprofit clinical facilities sponsored by the Maine Department of Behavioral and Developmental Services as well as the Indian Health Service.

In terms of dental sealant initiatives, about 40% of elementary schools have a State-funded oral health program that provide services (including sealants) to almost 50,000 children. In terms of fluoridation, an important intervention that prevents caries, about 75% of Maine people on public water supplies currently receive fluoridated water. But since over half

(56%) of Maine people use private wells for their drinking water, this means that up to 67% of Maine's total population do not have fluoridated water in their homes (some well water has fluoride naturally).

Community-based, nonprofit dental centers and school-linked programs focus on local needs to improve oral health and prevent dental disease. Community-based prevention initiatives, such as water flouridation and school-linked oral health programs providing sealants and other preventive services, are critical strategies in improving our oral health.

- **(Developmental) Increase the number of dental providers (private practices or health centers or dental clinics) located in designated Dental Health Professional Shortage Areas where Medicaid-eligible (MaineCare) individuals are able to receive dental care.**

  The Bureau of Health is working on ways to measure and track this objective. See accompanying table on Maine's Dental Care Analysis Areas.

MaineCare (Maine's Medicaid Program) covers preventive and routine dental services for children under 21, but only a few dental services are covered for adults, and only under certain urgent care guidelines.

The ability of MaineCare to improve access to dental care is constrained by a number of factors, including: a shortage of practicing dentists; the limited number of dentists accepting MaineCare patients; patient-missed appointments that cannot be reimbursed by MaineCare; and paperwork required by MaineCare that is viewed as cumbersome by some providers.

To improve this situation, recent changes in Maine's regulations facilitate the ability of dental hygienists to work in public health settings; i.e., to provide preventive services that otherwise would not be available. MaineCare has also worked to reduce the burden of paperwork and to

MA NE DENTAL CARE ANALYSIS AREAS (DCAA)

DCAA NAME	TOTAL NUMBER OF DENTISTS	POPULATION PER FTE DENTIST	FTE DENTISTS PER 100,000 PEOPLE	SHORTAGE AREA DESIGNATION STATUS
York	9	2,228	44.9	
Biddeford	25	3,299	30.3	
Sanford	12	4,188	23.9	X (LI)
Portland	142	2,313	43.3	X (LI) (city of Portland)
Gorham	10	3,581	27.9	
Parsonsfield	1	6,475	15.4	X
Bridgton	5	3,350	29.8	X (LI)
Brunswick	19	2,770	36.1	
Bath	9	2,732	36.6	
Damariscotta	7	3,277	30.5	X (LI)
Rockland	17	2,470	40.5	X (LI) (Pen Bay Islands)
Belfast	7	3,219	31.1	X (LI)
Lewiston	34	3,274	30.5	X (LI)
Norway	5	3,745	26.7	X (LI)
Fryeburg	2	2,439	41.0	X (LI)
Jay	2	7,810	12.8	X
Farmington	7	2,730	36.6	X (LI)
Bethel	1	4,850	20.6	X (LI)
Rumford	7	2,887	34.6	X (LI)
Kingfield/Rangeley	1	5,381	18.6	X
Gardiner	7	4,618	21.7	X (LI)
Augusta	19	2,288	43.7	X (LI)
Waterville	25	4,598	21.7	X (LI)
Pittsfield	4	3,642	27.5	X (LI)
Skowhegan	9	6,706	14.9	X (LI)
Bingham	0	0	0.0	X
Jackman	0	0	0.0	X
Millinocket/Lincoln	8	3,182	31.4	X (LI)
Grnvil/D-F/Milo	7	4,963	20.2	X (LI)
Corinth/Bangor	34	2,943	34.0	X (LI)
Howland/Old Town	1	22,577	4.4	X (LI)
Bucksport	1	8,002	12.5	X (LI)
Blue Hill	4	3,169	31.6	X (LI)
Ellsworth	8	3,616	27.7	X (LI)
Bar Harbor	4	3,853	26.0	
Goulds/Mlbrdg	3	3,381	29.6	X (LI)
Jonespt/Machias	2	7,246	13.7	X (LI)
Lubec/Eastpt	1	6,193	16.3	X
Calais	4	4,539	22.5	X (LI)
Vanceb/Danfrth	0	0	0.0	X
Island Falls	1	3,895	25.7	
Houlton	7	1,674	59.7	
Mars/Ash/FtFrf	3	9,200	10.9	X (LI)
VBuren/FtKent	2	7,933	12.6	X
Allagash	0	0	0.0	X
Berwick	5	4,993	20.0	
STATE TOTAL	**481**	**3,320**	**30.1**	

Augusta Mental Health Institute	Designated Facility
Bangor Mental Health Institute	Designated Facility
Penobscot Indian Reservation-Old Town	Designated Population
Houlton Band of Mallseets	Designated Population

FTE = Federally-weighted full-time equivalent
X = Dental care professional shortage area
(LI) = Shortage area is designated in part because of low income
Population data are from 1998.

In Maine:

There are close to 600 practicing dentists, over 700 practicing dental hygienists, and at least 1,000 practicing dental assistants. The ratio of dentists in Maine is lower than the national average (about 44/100,000 compared to 48/100,000 nationally). There has been a 3% decrease in dentists per capita in Maine over the past 10 years, compared to a decrease of 12% nationwide.

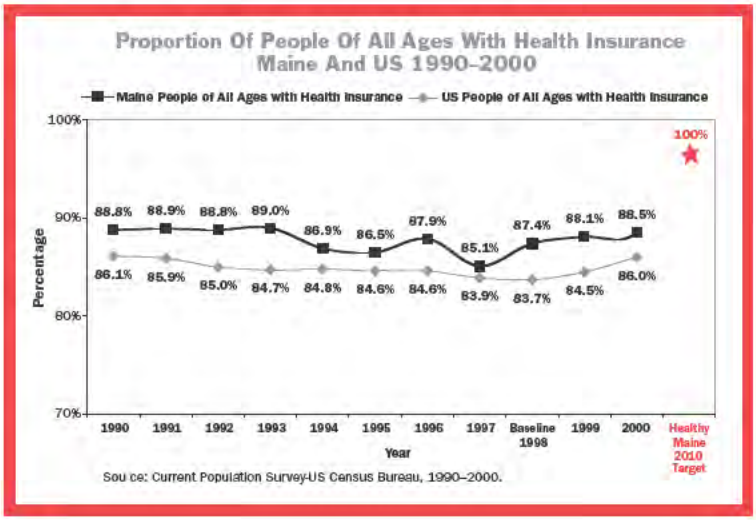
assist with those who miss appointments. Medicaid reimbursement rates were increased in 1998, resulting in a 100% increase in the total amount of dollars reimbursed for dental care. Although dental reimbursements by MaineCare are now about average for the US, many dentists report they do not cover the direct costs of providing care. In 1999, the Maine Legislature created the Maine Dental Education Loan Program, offering financial support for dentists or dental students in exchange for service in underserved areas of the State.

Maine, like 80% of all states, is still challenged by a lack of dentists who accept patients with Medicaid (MaineCare) Insurance. This appears to be an ongoing challenge, since in some areas of our State there is such a lack of dentists that it is difficult to find one who has openings for any new patients, regardless of insurance status.

- **1-1 Increase the proportion of persons with health insurance.**

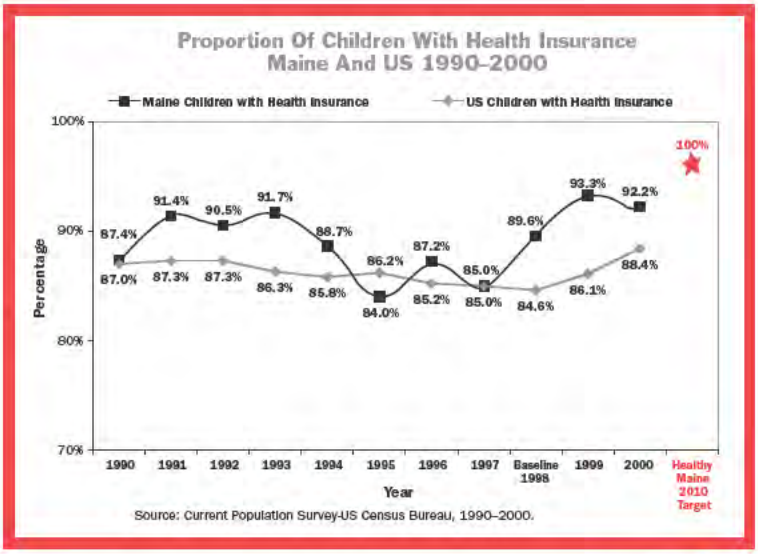
1-1a Increase the proportion of people of all ages with health insurance.

Healthy Maine 2010 Baseline: 87.4%
Healthy Maine 2010 Target: 100%



1-1b Increase the proportion of children with health insurance.

Healthy Maine 2010 Baseline: 89.6%
Healthy Maine 2010 Target: 100%



WHAT ARE MEDICARE, MEDICAID, and MAINECARE?

Medicare: The Federal health insurance program for people age 65 and older and certain people with disabilities or end-stage renal disease. Unlike Medicaid, Medicare is administered by the Federal government. Part A of Medicare covers hospital inpatient services, home health services, limited skilled nursing facility services, and hospice care. Part B covers physician services, hospital outpatient care, laboratory services, durable medical equipment, and other ambulatory care.

Medicare does not cover most nursing home care or other long-term care services, or most outpatient prescription drugs. Medicare covers only about half the health care expenditures of older Americans. About 5% of the nation's nursing home bills are covered by Medicare, compared to about 50% by Medicaid.

Medicaid: Primarily a health insurance program for low-income parents (mostly mothers) and children; a long-term care program for elders; and a funding source for services to people with disabilities.

In Maine, children and women make up about 70% of Medicaid enrollees, and account for about 30% of the expenditures. Likewise, elders and the disabled account for 30% of enrollees and 70% of the expenditures (see pie charts on the following page).

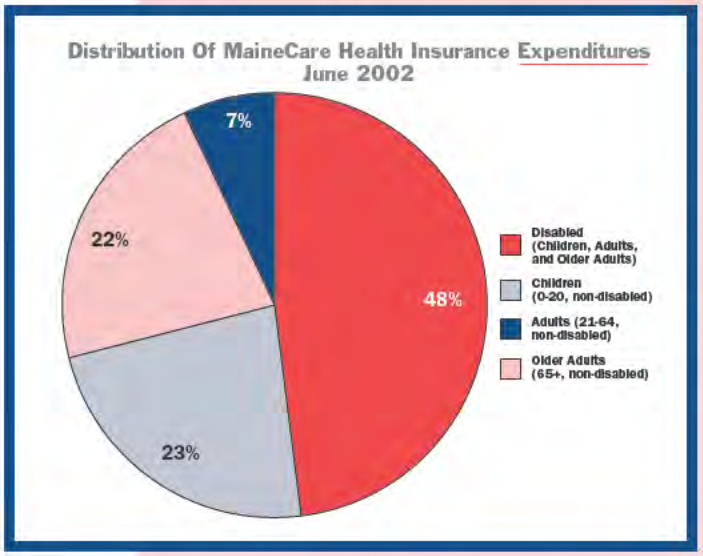
Medicaid covers about 40% of all births (pregnant mothers and newborns) in Maine and the US. Medicaid accounts for about half of all nursing home expenditures nationally, and covers about two-thirds of all nursing home residents who are elders. Medicaid pays for about one-third of the nation's medical bill for the disabled population. Disability for Medicaid eligibility is based on Federal Supplemental Security Income (SSI) program's criteria. Over half of the people eligible for Medicaid because of a disability have a mental disorder disability.

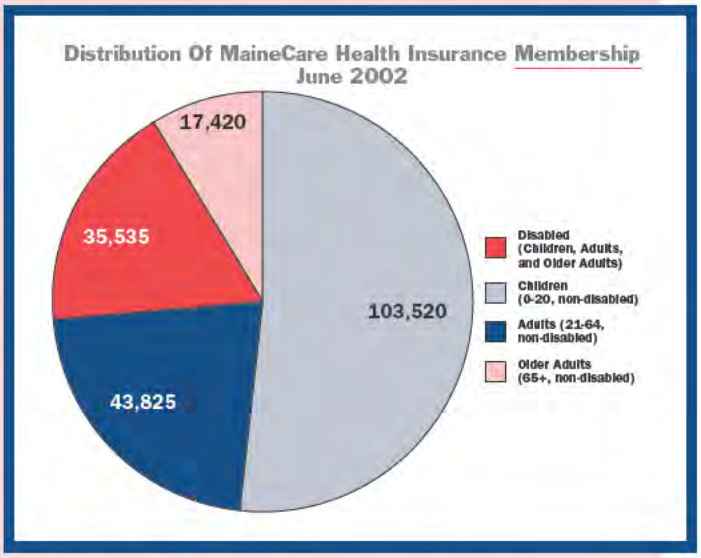
Upper Income Limit Federal Poverty Level (FPL)*	MaineCare Product	Population Eligible
300%	Healthy Maine Prescriptions	People without prescription drug coverage
250%	Many MaineCare Benefits including prescription drugs, most inpatient and outpatient care	People infected with HIV
250%	Full MaineCare Benefits (health insurance and pharmaceutical coverage)	Adults working with a disabling condition (according to Social Security Social Security Administration Administration criteria)
250%	Full MaineCare Benefits	Women ages 40–64 with breast or cervical cancer without health insurance
200%	Full MaineCare Benefits	Pregnant women and children age 0–18
185%	Low Cost Drugs Program, also known as Drugs for the Elderly. Part of Healthy Maine Prescriptions	People over age 64 or with certain disabilities
150%	Full MaineCare Benefits	Parents of children under age 18 and young adults ages 19–20
100%	Full MaineCare Benefits	Childless adults ages 21–64
100%	Full MaineCare Benefits	Over age 64 or disabled and not a wage earner

*Note: Eligibility is sometimes available to people earning more than these income limits because of allowable deductions.

Created as Title XIX of the Social Security Act of 1965, Medicaid is a joint Federal and State program administered by the states and funded by both. In Maine, about two-thirds of services reimbursed by Medicaid are paid by the Federal government, and one-third by State taxpayers. As of July 2002, Medicaid in Maine is known as MaineCare.

MaineCare: As of July 2002, MaineCare is the new name for Maine's Department of Human Services' health insurance coverage programs. MaineCare is the new name for a variety of different products and programs, including: Medicaid, Cub Care, Maine PrimeCare, HealthWorks, MaineNet,





Medical Eye Care, and EPSDT (Early Periodic Screening, Diagnosis, and Treatment Services). Healthy Maine Prescriptions is also a MaineCare product.

Since the State expanded health insurance coverage in 1998, more than 50,000 people who previously did not have health insurance are now covered by MaineCare. 30,000 of these are children. As a result, Maine now has one of the highest rates of insured children in the country.

Healthy Maine Prescriptions: As of July 2002, 114,000 Maine people are enrolled in Healthy Maine Prescriptions, a State program that offers its participants prescription drug discounts, usually about a 25% discount, generally based on the price pharmaceutical manufacturers are reimbursed by the State's Medicaid program. Drugs for the Elderly and Disabled (low-cost drugs program) is a program component with approximately 36,000 enrollees that offers steeper discounts for qualified people.

Federal Poverty Levels (as of February, 2002) by Monthly Income				
Family Size	**100% FPL**	**150% FPL**	**200% FPL**	**300% FPL**
1	$739	$1,108	$1,477	$2,215
2	$995	$1,493	$1,990	$2,985
3	$1,252	$1,878	$2,504	$3,755
4	$1,509	$2,263	$3,017	$4,525

MAINE'S HEALTH CARE SKILLED WORKER SHORTAGE

Maine, like the rest of the nation, is experiencing a shortage of skilled health care workers. According to a September 2001 Maine State Chamber of Commerce and Maine Technical College System survey, respondents from hospitals, long-term care facilities, and home health care services will need 1,584 additional registered and licensed practical nurses by the end of 2002, yet Maine schools will graduate only 531. Additionally, over 400 other health care workers will be needed in eight other skilled worker professions, yet only 108 graduates are projected. According to a March 2001 Maine Hospital Association survey, 60% of responding hospitals indicated they believe radiology technicians and laboratory technicians to be among the greatest recruitment needs. Pharmacists and pharmacy technicians are also in severe shortage. According to a September 2001 Maine Hospital Association survey, over two-thirds of responding hospitals (68%) felt the workforce shortage has affected access to health care.

Not having health insurance is a major public health issue throughout the US. An estimated 43 million Americans, as well as approximately 128,000 adults and 19,000 children in Maine lack health insurance. A recent Institute of Medicine Report ("Care Without Coverage: Too Little, Too Late", 2002) estimates there were more than 18,000 excess deaths among uninsured Americans in 2000, compared with people with health insurance. As a proportion of the US population, this would be an estimated 72 excess deaths in Maine. In this study, people experiencing even a short interruption in coverage had a decline in their health.

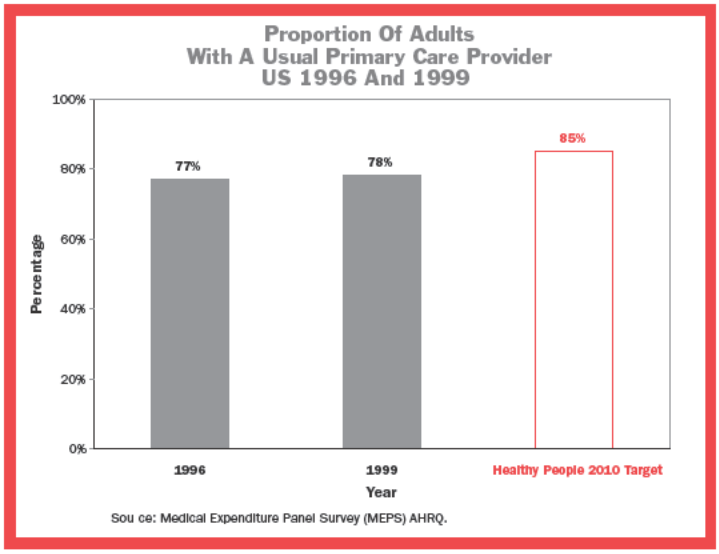
Maine adults who do not have health insurance are more likely to have a lower household income, less formal education, and be younger than Maine adults with health insurance. One-quarter of Maine adults without health insurance have a household income of less than $25,000 (while only 3.6% of Maine adults with a household income of greater than $50,000 lack health insurance). One-quarter of Maine adults without health insurance did not complete their high school education (while over 4% of Maine adults with a four-year college degree lack health insurance). One-fifth of Maine adults without health insurance are 18–34 years old (Me BRFSS).

What about uninsured children in Maine? An estimated 85% of uninsured children in Maine live in households with working parents who are likely to be seasonally employed, employed on a part-time basis, or self-employed. The strongest predictor of uninsurance among Maine children is the self-employment status of the head of the household. The second strongest predictor of uninsurance is the parents' employment in firms with 2 to 25 employees. Seven percent of uninsured Maine children do not have a regular source of health care, whereas all the publicly insured children reported a regular source of care. More than half of uninsured Maine children had not received dental care in the previous 12 months (Maine DHS/Muskie study "Health Insurance Among Maine's Children", 2000). Fortunately, Maine's proportion of children who have health insurance is one of the best in the country, mainly as a result of MaineCare (Medicaid and Cub Care) expansions in 1998.

One major limitation of this objective is that there is no agreement in defining a standard for minimum health insurance benefits. Without this standard, we can only measure the proportion of the population that is insured or not insured, but not those who are underinsured or who have full benefits. Currently, many with health insurance are felt to be underinsured; i.e., they have health insurance but because it is minimal coverage they may face significant financial barriers to accessing appropriate care.

"Ultimate responsibility for the performance of a country's health system lies with government. The careful and responsible management of the well-being of the population – stewardship – is the very essence of good government. The health of people is always a national priority: government responsibility for it is continuous and permanent ... Dollar for dollar spent on health, many countries are falling short of their performance potential. The result is a large number of preventable deaths and lives stunted by disability. The impact of this failure is born disproportionately by the poor."

World Health Report 2000, page viii



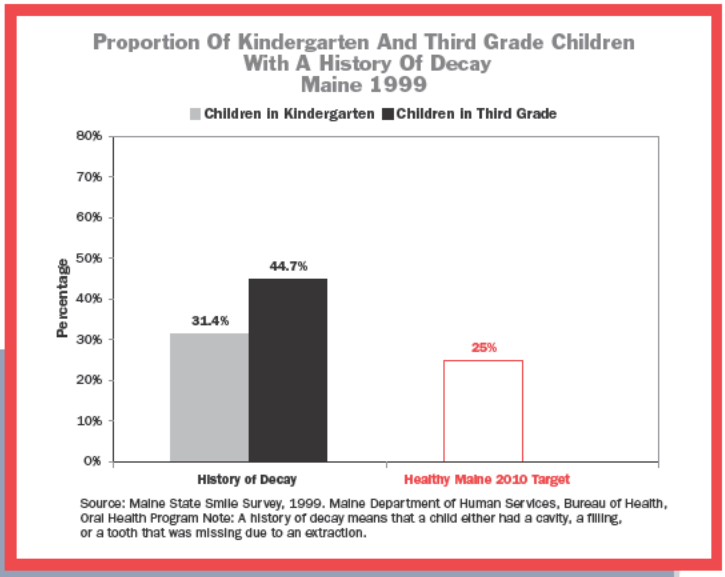
•1–5 (Developmental) Increase the proportion of persons with a usual primary care provider.

Healthy People 2010 Baseline: 77%
Healthy People 2010 Target: 85%

The Bureau of Health hopes to develop a mechanism for tracking this objective in Maine.

Having a usual source of primary care helps people to have their health issues identified early and helps direct them to appropriate care. Primary care providers are often physicians (MD or DO) who are family physicians, pediatricians, or internists; nurse practitioners (NP); or physician assistants (PA). Evidence suggests that having a primary care provider gives greater continuity of care as well as less costly medical care.

Barriers such as lack of health insurance and provider shortages commonly prevent people from having a primary care provider. Placements of primary care providers through such programs as the National Health Service Corps, the foreign-trained physician program (J1 Waiver Program), and the State's agreements with medical schools (such as with the University of Vermont, University of New England, and Dartmouth) have helped increase the number of primary health care providers in areas of Maine that have historically demonstrated severe shortages such as Aroostook, Waldo, and Washington Counties.



• 21–1b Reduce the proportion of children with dental caries experience in their primary teeth.

Healthy Maine 2010 Baseline: 31.4%, 44.7%
Healthy Maine 2010 Target: 25%

Of the kindergartners screened in the Smile Survey, 31.4% had a history of dental caries. Of the third graders, 44.7% had a history of dental caries.

Dental caries is the most common disease of childhood. School-aged children from

In Maine, of the 58,000 people employed in the health sector (10.4% of the total workforce), there are approximately:

2,850 active patient care physicians (2,500 MDs and 350 DOs) – a ratio of about 223 per 100,000 population (223/100,000), which is lower than the national ratio of 266/100,000;

1,230 active primary care physicians – a ratio of 96/100,000 population, compared to 100/100,000 nationally;

370 physician assistants – a ratio of 29/100,000 population, more than twice the national average of 14/100,000; and

670 nurse practitioners – a ratio of 52/100,000 population, much higher than the national average of 28/100,000.

Source: Maine DHS and Maine Department of Financial and Professional Regulation, 1999.

lower-income Maine households have poorer oral health status than do children from higher-income households. Poor oral health in young people as well as in adults may result not only in eventual tooth loss but also in impaired general health, compromised nutrition, days lost from school and work, and a compromised ability to obtain or advance in education and employment.

Dental disease often decreases our ability to maintain proper nutrition and to communicate effectively. Untreated dental disease can have many serious negative consequences, and a negative effect on our chances and achievements in school, social life, and employment. For example, people with dental caries or missing teeth sometimes report being unable to find a job or to get a better job because of their appearance.

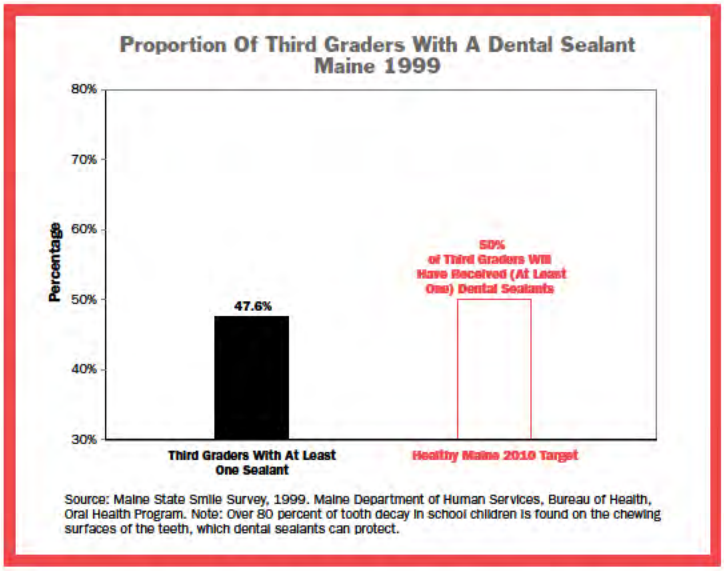
Determinants of poor oral health include poor nutrition, poor hygiene, behaviors such as tobacco addiction or excessive alcohol consumption, or lack of community interventions such as water fluoridation or sealants, and lack of regular access to professional dental care.

- **21–8 Increase the proportion of children who have received dental sealants on their molar teeth.**

  Healthy Maine 2010 Baseline: 47.6%
  Healthy Maine 2010 Target: 50%

  The 1999 Smile Survey revealed that 47.6% of third graders had at least one sealant on a permanent tooth. It was also shown that 56.8% of third graders were in need of dental sealants including additional ones in those with sealants. Since school-based dental sealant programs still account for a smaller number of the sealants being placed, it can be assumed that most of the sealants observed were placed in the dental office.

  Sealants are a plastic material that is applied to the chewing surfaces of the molar teeth to protect against decay. Sealants are most effective when applied soon after the molars erupt. For first molars, this is age 6–8 and age 12–14 for second molars.



Source: Maine State Smile Survey, 1999. Maine Department of Human Services, Bureau of Health, Oral Health Program. Note: Over 80 percent of tooth decay in school children is found on the chewing surfaces of the teeth, which dental sealants can protect.

- **(Developmental) Improve access to end-of-life care.**

  With quality accessible hospice care, many people may be able to spend their final days in comfort and in a setting of their choice. For some, this might mean spending this time pain-free and in the comfort of their homes. However, many people coping with a terminal illness face significant barriers to desired end-of-life care. Financial barriers, health care provider knowledge, and lack of available hospice personnel are just some of these barriers.

  Significant strides were achieved by legislation passed in 2001 that helped reduce financial barriers by requiring health insurance policies in Maine to reimburse for hospice care for those who are terminally ill, and increasing the reimbursement providers receive from MaineCare Insurance (at that time, Medicaid). This legislation also established the Maine Center for End-of-Life Care to centralize education and research regarding quality end-of-life care. (See profile on Joe Mayo.) An objective related to improving access to end-of-life care will be developed with the Maine Center for End-of-Life Care, which is housed in the Maine Hospice Council, since there are no related *Healthy People 2010* objectives.

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Chronic Disease

GOAL

Reduce the number of new cases as well as improve early detection and treatment of chronic diseases.

Overview

One of the biggest changes in health over the last 100 years is the dramatic change in causes of death and disability from primarily infectious and acute diseases such as pneumonia, tuberculosis, and diarrhea to chronic diseases such as heart disease, cancer, stroke, emphysema, diabetes mellitus, and arthritis. In fact, about 70% of Maine people die from only four diseases: cardiovascular disease (heart disease and stroke), cancer, chronic lung disease (primarily emphysema), and diabetes. All of these are chronic in that the disease processes often take years until the onset of symptoms, and the symptoms themselves often disable people for a number of years. In fact, nationally about one-third of all disabilities are caused by one of these four diseases.

The Burden Of Selected Chronic Diseases In Maine

Disease Category (ICD9 & 10 Codes)	Primary Cause of Death 1999	Proportion of Total Deaths	Primary Cause of Hospitalization 1999	Proportion of Total Hospitalizations	Estimated Cost (in billions)
Cardiovascular Disease (390 – 459) (I00 – I78)	**4,564**	**37.2%**	**29,739**	**18.8%**	**1.16**
Heart Disease (390-398, 402, 404 429) (I00-I09, I11, I13, I20-I51)	3,418	27.9%	22,493	14.2%	.92
Stroke (430 438) (I60-I69)	879	7.2%	4,124	2.6%	.22
Other and unspecified	267	2.2%	3,122	2.0%	NA
Cancer (140-208) (C00-C80)	**2,735**	**22.3%**	**6,583**	**4.2%**	**.52**
Trachea, lung and bronchus (162) (C33-C34)	824	6.7%	802	0.5%	NA
Colon and rectum (153-154) (C18-C20)	331	2.7%	892	0.6%	NA
Female Breast (174) (C50)	215	1.8%	525	0.3%	.07
Prostrate (185) (C61)	148	1.2%	352	0.2%	NA
Other and unspecified	1,217	9.9%	4,012	2.5%	NA
Chronic Lung Disease (490-496) (J40-J47)	**751**	**6.1%**	**4,874**	**3.1%**	**.19**
Chronic b onchitis & emphysema (491,492) (J40-J42, J43)	89	0.7%	3,168	2.0%	NA
Asthma (493) (J45-J46)	18	0.2%	1,367	0.9%	.07
Other and unspecified	644	5.3%	339	0.2%	NA
Diabetes (250) (E10-E14)	**348**	**2.8%**	**1,759**	**1.1%**	**.60**
Total	**12,261**	**100.0%**	**158,294**	**100.0%**	**2.47**

Data Source: Mortality – CDC Wonder
Hospitalizations – Maine Health Data Organization.

Note: ICD-9 Codes used for hospitalization data.
ICD-10 Codes used for mortality data.

Estimated costs are direct and indirect health care costs.

The chronic diseases covered in this chapter are often preventable. Of all cases of heart disease, stroke, cancer, type 2 diabetes, and emphysema, most are preventable. There are five underlying major causative factors common to these diseases: three behavioral risk factors of tobacco addiction, physical inactivity, and poor nutrition; and two modifiable biological factors of elevated cholesterol and

blood pressure. The three behavioral risk factors are reviewed in other chapters.

According to 1997 data from the Centers for Disease Control and Prevention (CDC), Maine has the fourth highest percent of people in the nation who die from the four major chronic diseases of cardiovascular disease, cancer, chronic lung disease, and diabetes. Diabetes, chronic lung disease, and arthritis disproportionately reduce quality of life by impairing life activities and increasing rates of hospitalizations.

With an expected doubling of Maine's elder population over the next 20 years, the burden of chronic disease is expected to grow substantially. Asthma is the only common chronic disease that occurs more often in children under age 18 than in adults. Both asthma and type 2 diabetes are increasingly common in children and young adults.

The four most common chronic diseases – cardiovascular disease, cancer, chronic lung disease, and diabetes – cost Maine about $2.5 billion per year in health care costs. The economic, psychological, and social burdens of these diseases on individuals, families, and communities are beyond measure. However, these burdens can be dramatically reduced if proven advances in prevention, early detection, and treatment are made more available to all Maine people. As a result, we can all live longer and healthier lives.

Healthy Maine Partnerships

Bureau of Health, Department of Human Services

HOW DOES YOUR COMMUNITY SCORE?

IS YOUR COMMUNITY HEART HEALTHY?

My Community Supports Non-Tobacco Use:

- Smoke-free School Campuses
- Smoke-free Hospital Campuses
- Smoke-free Playing Fields
- Smoke-free Parks and Fairgrounds
- Tobacco cessation easily available throughout my community

My Community Supports Physical Activity:

- Schools in my community are open before, after school hours, and on weekends for walking or for use of the gym for community members of all ages.
- Schools in my community require physical activity at every grade level (K-12).
- My community has sidewalks, paths, and road shoulders for people to walk and/or bike safely.
- In my community there are malls or public buildings open to the public for walking.
- Businesses in my community have policies to promote physical activity, such as flex-time breaks and lunch hour incentives.

My Community Supports Healthy Food Choices:

- Restaurants in my community mention low fat options on their menu, e.g., low fat milk, salad dressing, and margarine.
- Restaurants, especially chain fast food establishments, display fat and calorie content on menus.
- Schools in my community offer 1% or less fat milk.
- Schools in my community offer only 100% fruit juice, water, milk, and other healthy options in their vending machines and as part of their food services.

PRIMARY
SECONDARY
TERTIARY

Strategies

- **Improved Surveillance of Chronic Diseases and Disabilities:** This strategy is especially important for asthma and arthritis, common chronic diseases for which there exists no current Statewide ongoing surveillance system to determine prevalence or incidence. There is also no ongoing surveillance system to assess the extent and impact of disabilities from chronic diseases. Surveillance is also a challenge for other chronic disease issues, but hospitalization data (Maine Health Data Organization), death certificates (Vital Records, in Bureau of Health), and Behavior Risk Factor Surveillance System (BRFSS, in Bureau of Health) currently cover, to some extent, most of the chronic diseases that commonly result in hospitalizations or death.
- **Environmental Changes:** These include health promotion and policy initiatives that change the environments in which we live, work, play, and attend school to make it easier for us to make healthy choices – easier for us to be physically active, eat nutritiously, and live tobacco-free. Additionally, both indoor and outdoor improvements in air quality reduce incidence and severity of asthma and other chronic lung diseases such as emphysema.
- **Education Initiatives:** Effective health education results in more people eating a nutritious diet (for instance, one that is low in saturated fat and cholesterol, high in fiber including fresh fruits and vegetables), increasing physical activity, reducing excess weight, and living tobacco-free.
- **Detecting and Lowering Risk:** Screening for, identifying, and reducing elevated blood pressure (to reduce risk for heart disease and stroke), elevated cholesterol (to reduce heart disease risk), overweight and obesity, poor nutrition, physical inactivity, tobacco use, and tobacco exposure all reduce disease risk.

- **Screening and Detection of Chronic Diseases:** Asthma, heart disease, diabetes, some cancers, and chronic kidney disease are often asymptomatic in the early stages and can remain undiagnosed for many years. Screening tests for these diseases allow timely identification and early treatment to prevent and reduce the complications associated with these diseases.
- **Adequate Treatment for Chronic Diseases:** It is critical with almost all chronic diseases that appropriate treatment, ongoing management, and patient self-management education be initiated and maintained in order to reduce complications and hospitalizations, and to improve the length and quality of life.

Health Disparities

(Populations at risk for specific chronic diseases, based on national data in *Healthy People 2010*)

- **Youth** (higher rates of asthma, and rates of asthma rising more rapidly)
- **Elderly** (higher rates of most chronic diseases such as heart disease, stroke, diabetes, cancer, arthritis, osteoporosis)
- **Men** (higher overall heart disease death rates, higher rates of obstructive sleep apnea in men over the age of 50, higher rates of chronic obstructive pulmonary disease [COPD] over the age of 55)
- **Women** (higher death rates after a heart attack, lower rates of kidney transplantation, higher rates of illness and death from asthma, increasing death rates due to lung cancer [compared to a decreasing rates in men], higher rates of osteoporosis and arthritis)
- **Workers** (such as miners, firefighters, metal workers, paper mill workers, agriculture workers, construction workers who work with cement, and other workers who are exposed to dusts, flames, and gases that can result in exposure to respiratory hazards and higher rates of chronic respiratory illnesses)
- **People exposed to Secondhand Smoke** (including prenatal exposure) (higher rates of lung cancer, asthma, chronic otitis media, and pneumonia)
- **African Americans** (higher rates of deaths due to strokes, heart attacks, and cancer, higher rates of high blood pressure, higher rates of cancer, higher risk of chronic kidney disease, higher rates of diabetes and deaths due to diabetes, higher rates of hospitalization and death due to asthma)
- **Asian Americans** (higher risk of chronic kidney disease due to diabetes, higher rates of death due to cancer)
- **Hispanics** (higher rates of diabetes and complications from diabetes, higher rates of death due to asthma and cancer)
- **Native Americans** (higher rates of diabetes, higher risk of chronic kidney disease due to diabetes, lower transplantation rates for kidney failure, higher rates of death due to cancer)
- **Persons of Low Socioeconomic Status** (higher burden of disease for many chronic diseases such as asthma, heart disease, and diabetes even when access to care is assured, which could be due to multiple factors such as higher level of exposure to environmental pollutants, tobacco use, poor nutrition, environmental allergens [house dust mites, cockroach particles, cat and dog dander, etc.], lack of social support; and higher rates of arthritis and its associated disabilities)

Objectives

Objective numbers are *Healthy People 2010* objective numbers.

DIABETES MELLITUS

Diabetes mellitus is a group of diseases characterized by high levels of blood glucose resulting from defects in insulin secretion, insulin action, or both. Over time, especially without the benefits of proper medical care, organ complications can occur, including heart, nerve, foot, eye, and kidney damage. In the United States, diabetes is the leading cause of nontraumatic amputations, blindness among working-age adults, and end-stage kidney disease. Diabetes has risen a startling 49% nationally over the past decade, paralleling a 61% rise in obesity.

Three major types of Diabetes Mellitus:

Type 1: Usually occurring in youth, the body does not produce insulin, and treatment must include insulin in combination with proper nutrition and physical activity. Type 1 represents about 5% of all persons with diagnosed diabetes.

Type 2: Usually occurring in people over the age of 30, but recently has been seen in increasing numbers in younger adults and children. Although persons with type 2 diabetes can produce insulin, their body is unable to effectively use the insulin. Treatment for type 2 diabetes can include oral medication and/or insulin, in combination with proper nutrition and physical activity. Type 2 diabetes represents 95% of all persons with diagnosed diabetes in the United States.

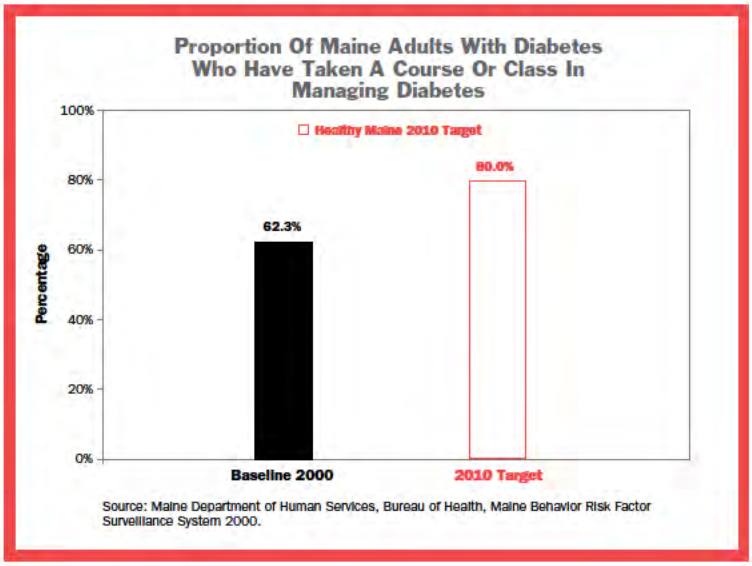
Gestational Diabetes Mellitus (GDM): Development of diabetes during pregnancy by a woman who previously was not diagnosed with diabetes. Two to five percent of all pregnancies are associated with GDM. GDM presents health risks to the fetus and newborn, and is a risk factor for the mother and offspring for developing diabetes in the future.

- **5–1 Increase the proportion of persons with diabetes who receive formal diabetes education.**

  5–1a Increase the proportion of Maine adults with diabetes who have taken a course or class managing diabetes.

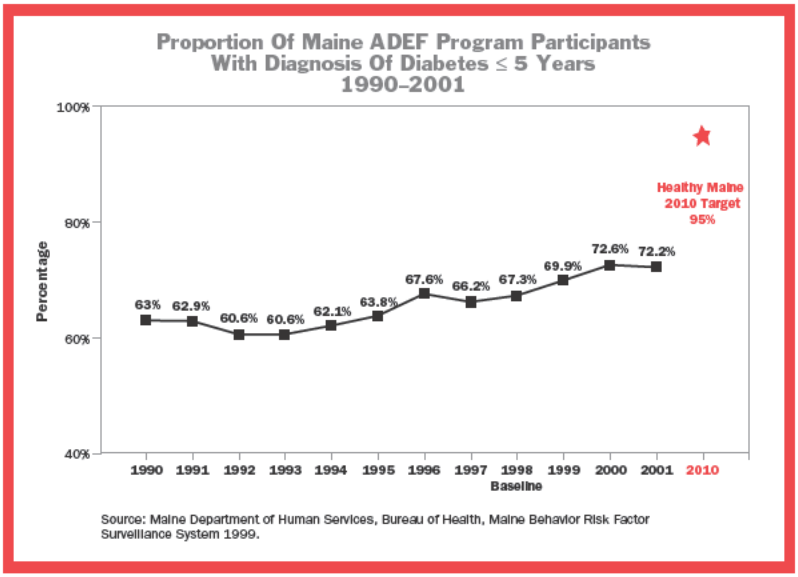
  Healthy Maine 2010 Baseline: 62.3%
  Healthy Maine 2010 Target: 80.0%

  Maine BRFSS asked in 2000 whether or not adults with diabetes had ever taken a course or class in diabetes management. This is used as Maine's baseline. There is no comparable national data. However, the 1998 National Health Interview Survey reported in Healthy People 2010 indicates 45% of adults with diabetes reporting they had taken some formal diabetes education training.



5–1b Increase the proportion of Maine ADEF Program participants with diagnosis of diabetes ≤ 5 years.

Healthy Maine 2010 Baseline: 67.3%
Healthy Maine 2010 Target: 95.0%

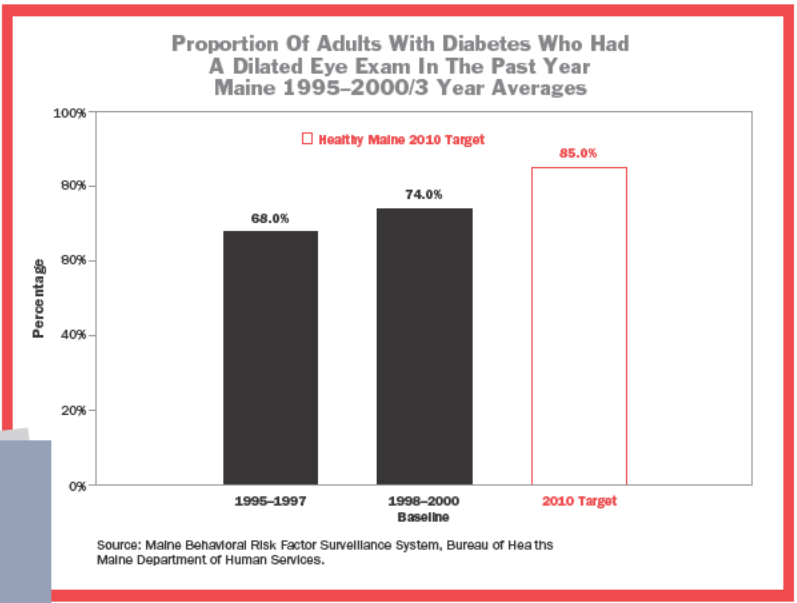


Since 1980, the Bureau of Health's Diabetes Control Program has collected data on the number of person with diabetes receiving formal diabetes education through the Ambulatory Diabetes Education and Follow-up (ADEF) Program. As of 2000, about 25,000 adults in Maine had taken this yearlong course. The sub-objective measures what percent of those taking the course participated within five years of their diagnosis. Since earlier interventions are most effective, early participation in such courses is desired.

- **5–13 Increase the proportion of persons with diabetes who have an annual dilated eye examination.**

Healthy Maine 2010 Baseline: 74%
Healthy Maine 2010 Target: 85%

National survey data (not completely comparable to Maine data) indicates that about 47% of adults with diabetes had a dilated eye exam in 1998 *(Healthy People 2010)*.

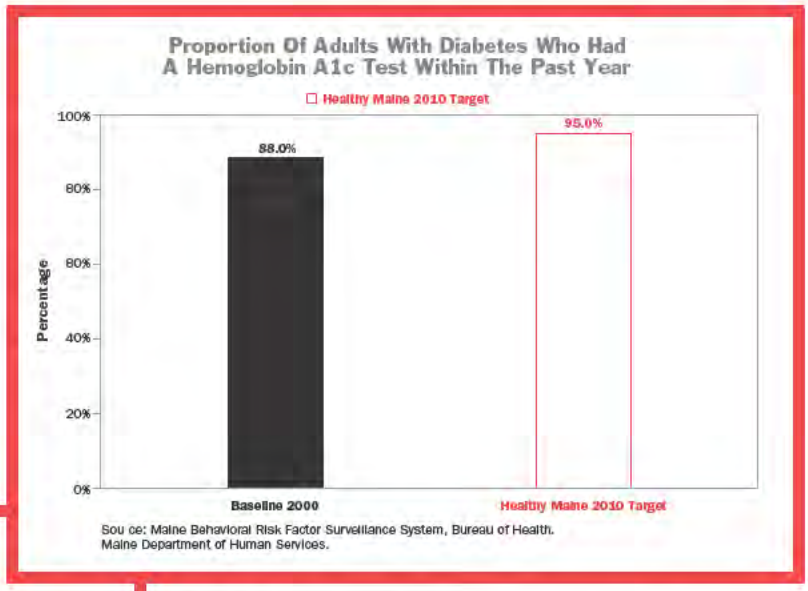


Adults with diabetes have heart disease death rates 2–4 times and stroke incidence 3 times as high as that of adults without diabetes (CDC, 1998).

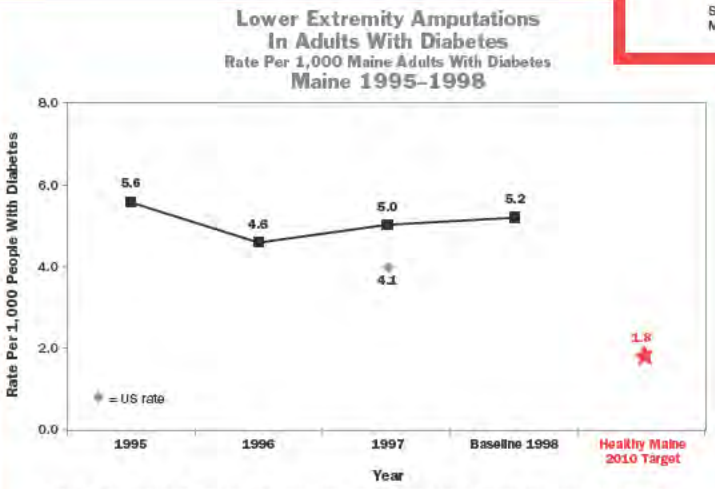
Heart disease is the leading cause of diabetic-related deaths.

- **5–12 Increase the proportion of adults with diabetes who have a hemoglobin A1c test at least once a year.**

  Healthy Maine 2010 Baseline: 88%
  Healthy Maine 2010 Target: 95%



Sou ce: Maine Behavioral Risk Factor Surveillance System, Bureau of Health.
Maine Department of Human Services.



Note: The population with diabetes is derived from Behavior Risk Factor Surveillance System (BRFSS) data supplied by Sara Salley, Hea th Policy Institute, Edmund S. Muskie School of Public Service, Unive sity of Southe n Maine. Earlier yea s include gestational diabetes, so were not included for this objective.
Source: Maine Department of Human Services, Bureau of Hea th, Office of Data, Research and Vital Statistics, Maine Hospitalization Discha ge Data.

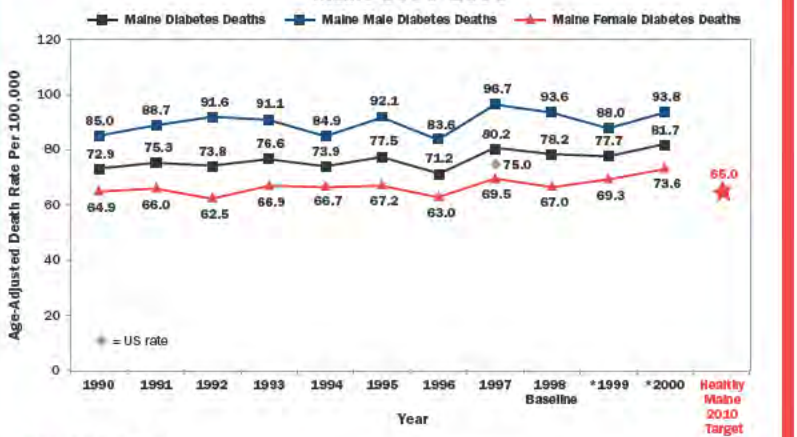
- **5–10 Reduce the rate of lower extremity amputations in adults with diabetes.**

  Healthy Maine 2010 Baseline: 5.2
  Healthy Maine 2010 Target: 1.8

- **5–5 Reduce the diabetes death rate.**

  Healthy Maine 2010 Baseline: 78.2
  Healthy Maine 2010 Target: 65.0

Approximately 63,000 Maine residents are estimated to have diabetes; only two-thirds have been diagnosed.



*Indicates Preliminna y Data

Note: Diabetes = ICD-9 Codes 250; and for years 1999 and 2000, ICD-10 E10-E14 (As underlying or multiple cause of death).
Source: Maine Department of Human Services, Bureau of Health, Office of Data, Resea ch and Vital Statistics.

CHRONIC KIDNEY FAILURE

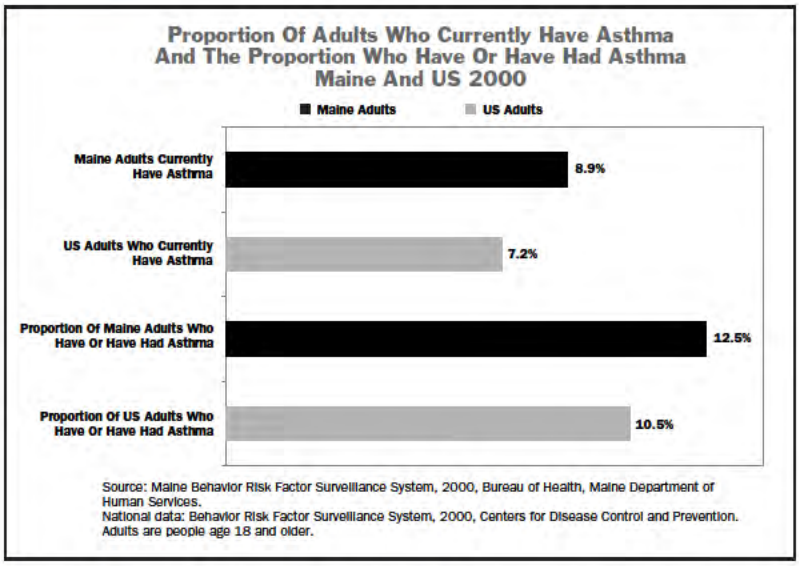
Kidney Failure: 68% of all kidney failure is caused by diabetes or high blood pressure, the remainder is mostly due to infections, autoimmune, or genetic disorders. Kidney failure rates have increased dramatically across the United States, an increase of greater than 100% over the past ten years. This, in part, reflects the significant increase in new cases of type 2 diabetes, concurrent with increasing frequency of obesity.

- **4–3 (Developmental) Increase the proportion of treated chronic kidney failure patients who have received counseling on nutrition, treatment choices, and cardiovascular care 12 months before the start of renal replacement therapy.**

  Although Maine is unable to track this objective at this time, a national survey reported in *Healthy People 2010* shows that in 1996 45% of newly diagnosed patients with treated chronic kidney failure received this counseling.

CHRONIC RESPIRATORY DISEASE

About one in eight Maine people have a chronic respiratory disease, mainly asthma, chronic pulmonary disease (COPD), or obstructive sleep apnea.



Asthma: The numbers of people with asthma have increased over 100% nationally over the past two decades, and this rate of increase appears higher in youth. It is estimated that about one in ten Maine school children have or have had asthma. One in eight Maine adults report having had asthma at some time in their life. According to the Behavioral Risk Factor Surveillance System (BRFSS), in 2000 Maine has one of the highest self-reported prevalence of current adult asthma in the United States. Current asthma is identified as persons who report "ever been told by a doctor that you have asthma" and "still have asthma."

Some factors that may contribute to Maine's high asthma rates are poor indoor air quality due to strong weatherproofing, wood-fired heating systems, and secondhand tobacco smoke as well as poor outdoor air quality due in part to ozone created in Maine as well as carried on the jet stream from the Midwest and other parts of the country.

Asthma questions were added to the Behavorial Risk Factor Surveillance System in 1999. Therefore, there is not enough data to report on trends or make any future projections. However, it is known that in Maine, women are 1.5 times more likely to report current asthma than men. This is reflected on a national level where women are 1.8 times more likely to report current asthma than men. It is also clear that the current prevalence of asthma in the adult population has not changed significantly from 1999 to 2000. This, in combination with no real significant reduction in adult smoking

rates, an increasing national trend in asthma prevalence, better diagnosis and better understanding of asthma allergens and irritants indicates that the appropriate target will be to maintain our current prevalence of self-reported asthma. The Maine Legislature in 2002 established the Maine Asthma Control Program in the Bureau of Health funded by the Centers for Disease Control and Prevention. This program will help assess, track, and address asthma in Maine.

Chronic Obstructive Pulmonary Disease (COPD): COPD includes chronic bronchitis and emphysema, mostly occurring in people over the age of 65. Between 80 and 90% of all COPD is due to tobacco smoke. Some of the remainder is due to other environmental respiratory hazards as seen in certain occupations and inherited disorders such as alpha one antitrypsin deficiency.

Obstructive Sleep Apnea: Apnea occurs when there are repeated involuntary breathing pauses during sleep. Symptoms include intermittent snoring, frequent awakening from sleep, early morning headaches, excessive daytime sleepiness, and poor work or school performance. Sleep apnea is associated with higher risks for cardiovascular disease, high blood pressure, asthma, and motor vehicle crashes. Although it is estimated that about 1 in 14 Americans suffer from some form of obstructive sleep apnea, there is very little awareness among the public and health care providers, and as a result, it is felt that many people go undiagnosed and mismanaged. There are no ongoing systems for collecting data on this disorder, and, therefore, there are currently no objectives to follow sleep apnea.

- **24–8 (Developmental) Establish a surveillance system for tracking asthma deaths, illness, disability, impact of occupational and environmental factors on asthma, access to medical care, and asthma management.**

  The newly established Maine Asthma Control Program in the Bureau of Health, along with other partners in Maine, are working on implementing these developmental objectives.

- **24–6 (Developmental) Increase the proportion of persons with asthma who receive formal patient education as an essential part of the management of their condition.**

  A national survey in 1998 indicated that only 8.4% of people with asthma had received formal patient education *(Healthy People 2010)*.

Currently, the Maine Asthma Control Program, a collaboration between the Bureau of Health, the American Lung Association of Maine, and others, and funded by the Centers for Disease Control and Prevention (CDC), is developing an ongoing school survey of kindergarten and fifth graders in Maine to help determine prevalence of asthma in school-age children.

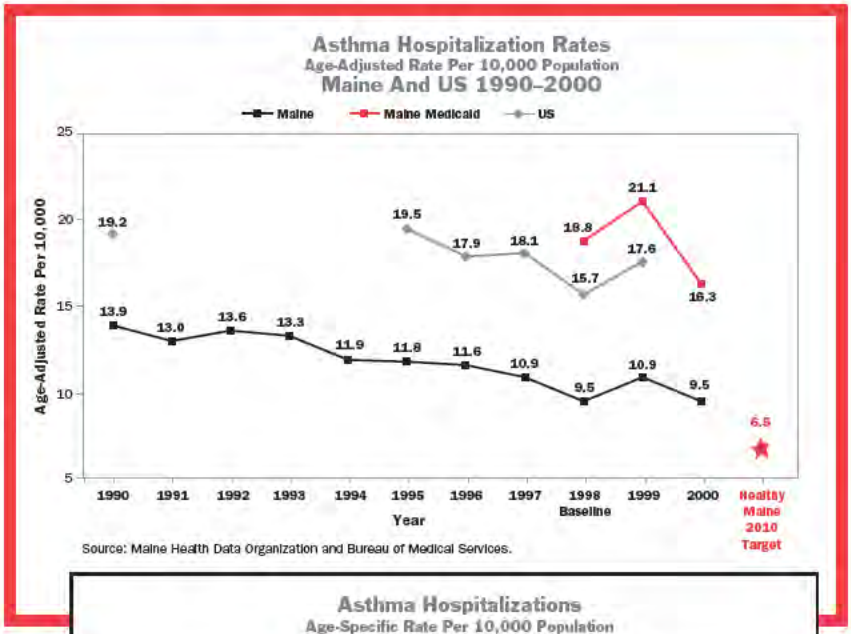
An estimated 100,000 Maine people suffer from asthma. 20,000 are children.

- **24–5 (Developmental) Reduce the number of school days missed by children with asthma due to asthma.**
- **24–3 (Developmental) Reduce hospital emergency department visits for asthma.**

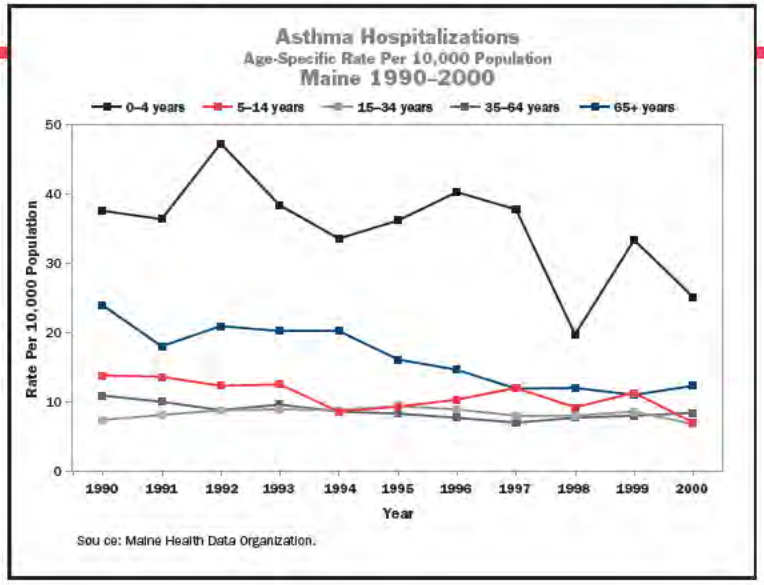
24–3a Reduce asthma hospitalization rates.

Healthy Maine 2010 Baseline: 9.5
Healthy Maine 2010 Target: 6.5

Currently, this objective is developmental. However, with the Maine Health Data Organization's expansion of its database, this should be measurable in the near future. Although few emergency department visits for asthma result in hospitalization, the hospitalization rate for asthma is currently given as a proxy for measuring this objective.



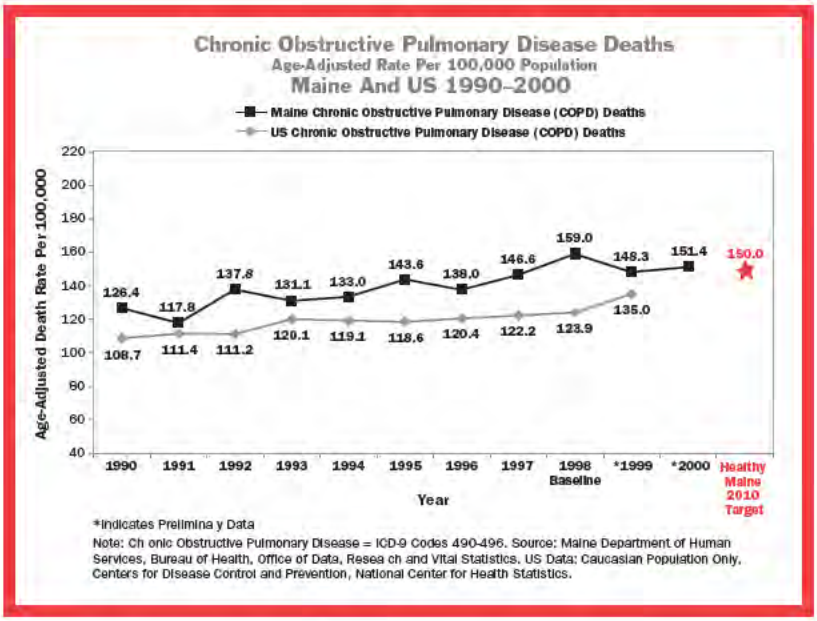
Nationally, low income, preschool children are particularly at high risk for hospitalization for asthma. Since a large proportion of people with Medicaid Insurance are low income, high-risk children, hospitalization rates are also shown for people with Medicaid Insurance. Although it is unclear why low-income young children are at high risk for severe asthma, some factors may include high levels of exposure to secondhand smoke and other environmental allergens (house dust mites, cat and dog dander, pollutants), and lack of resources to effectively manage the disease.

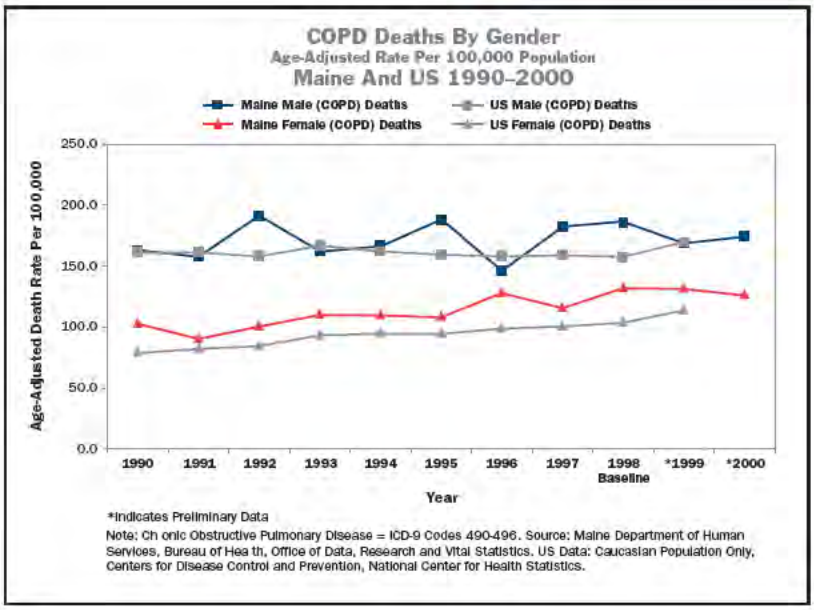


About one in eight Maine people have a chronic respiratory disease, mainly asthma, chronic obstructive pulmonary disease (COPD), or obstructive sleep apnea.

- **24–10 Reduce deaths from chronic obstructive pulmonary disease (COPD).**

  Healthy Maine 2010 Baseline: 159.0
  Healthy Maine 2010 Target: 150.0





CARDIOVASCULAR DISEASE

Cardiovascular disease refers to a variety of diseases and conditions affecting the heart and blood vessels; the two largest being heart disease and stroke. Congestive heart failure, hypertension (also known as high blood pressure), and diseases of the arteries, veins, and circulatory system are the other diseases and conditions that are included in the term cardiovascular disease.

The disease process that leads to cardiovascular disease begins decades before a fatal or disabling heart attack or stroke. For this reason, prevention efforts must address the lifestyle behaviors that cause this disease. Research has shown that lifestyle changes, monitoring, and treatment of risk factors can prevent or reduce cardiovascular disease.

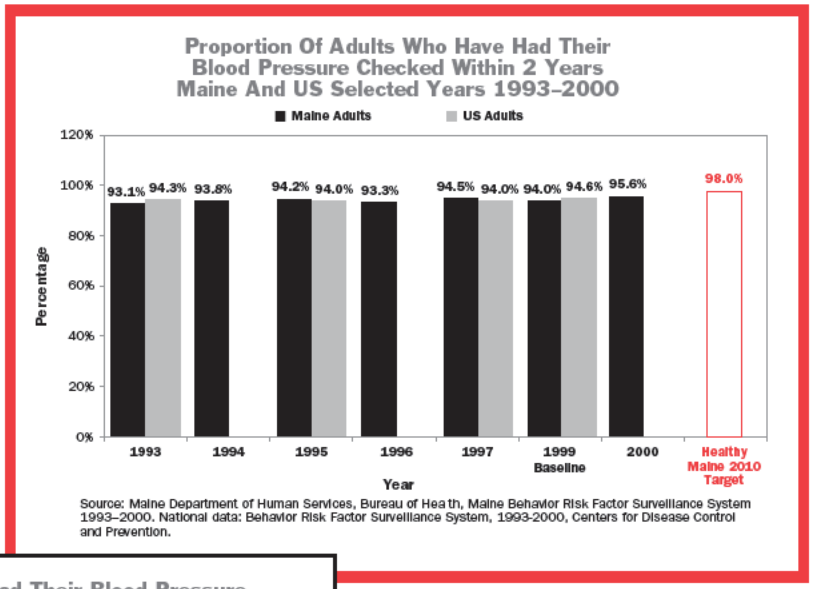
In 1999, cardiovascular disease caused approximately 39% of all deaths in Maine (over 4,500 deaths). The majority of these cardiovascular deaths were due to heart disease (3,418) and stroke (879). The cost in terms of life is significant, but cardiovascular disease also exacts a huge toll in terms of disability, days lost from work, emotional costs, and lost productivity. In 2000, there were almost 30,000 hospitalizations for Maine citizens with cardiovascular disease at a cost of $437 million in hospital charges alone (Maine Health Data Organization, 2001).

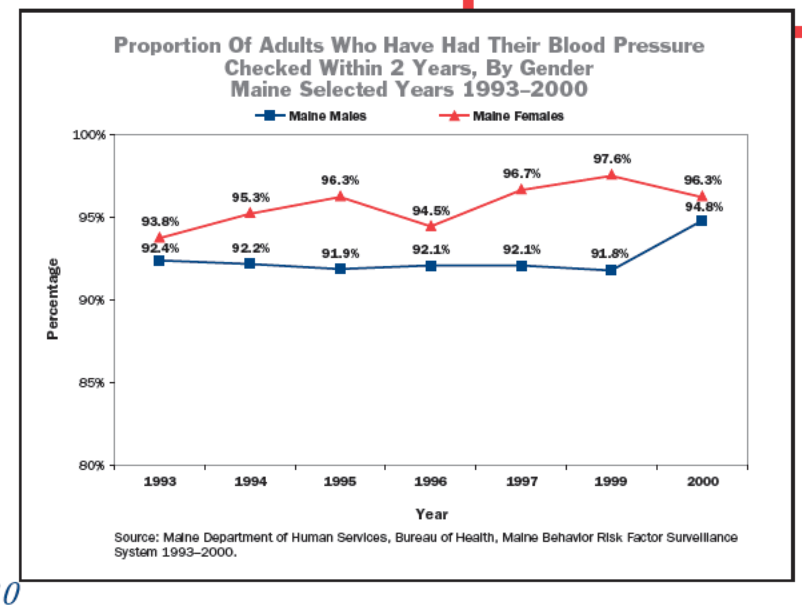
Heart disease is the leading cause of death in Maine and across the nation, and stroke is the third leading cause of death. Maine ranks twenty-seventh in the nation and first in the New England for age-adjusted heart disease death rates (among whites). Maine ranks twenty-first in the nation and first in New England for age-adjusted stroke death rates (among whites).

Since the 1960s, deaths from heart disease (mostly coronary heart disease) and stroke have declined in the United States. These declines are mainly due to improvements in detection and treatment of cardiovascular disease, high blood pressure, and cholesterol as well as reductions in tobacco addiction rates. Heart disease and stroke share several major risk factors, including high blood pressure, tobacco addiction, high cholesterol, and overweight. Physical inactivity and diabetes are additional risk factors for heart disease.

- **12–12 Increase the proportion of adults who have had their blood pressure checked within the preceding two years.**

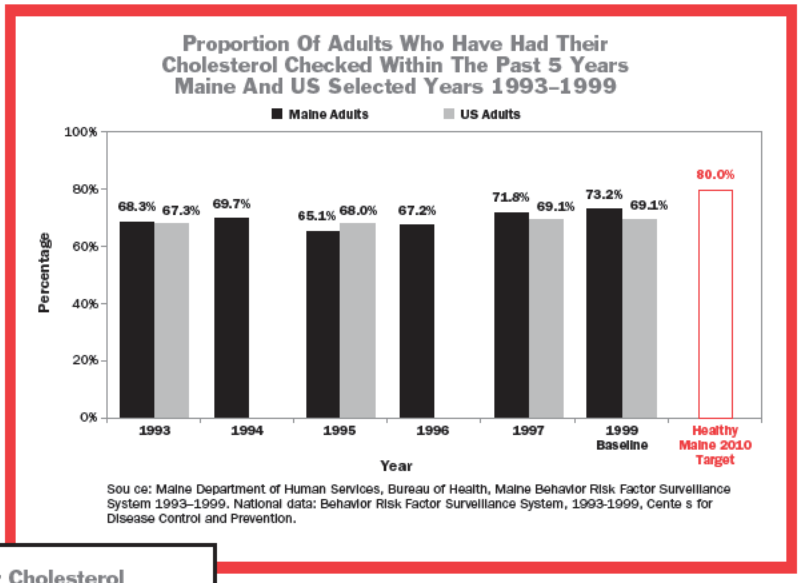
  Healthy Maine 2010 Baseline: 94%
  Healthy Maine 2010 Target: 98%

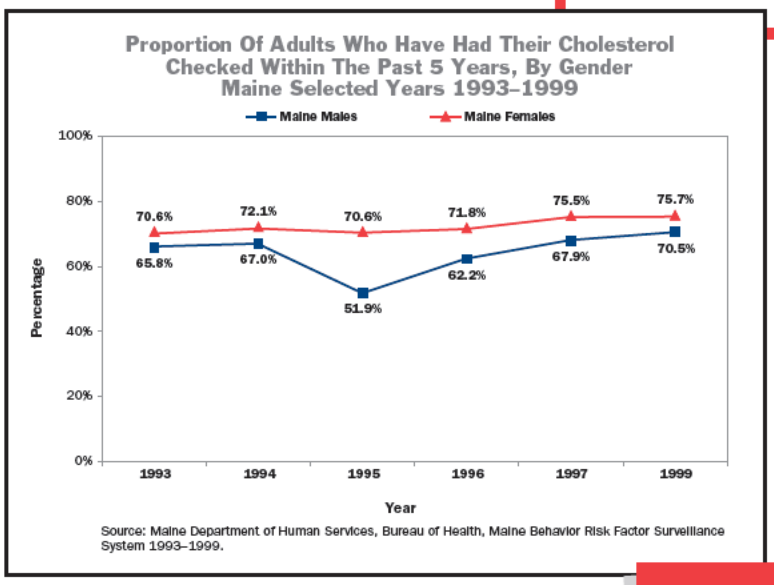




- **12–15 Increase the proportion of adults in Maine who have had their blood cholesterol checked within the preceding five years.**

  Healthy Maine 2010 Baseline: 73.2%
  Healthy Maine 2010 Target: 80.0%





Maine rates highest in New England for reported high cholesterol rate (32% of adults) and for high blood pressure (25% of adults).

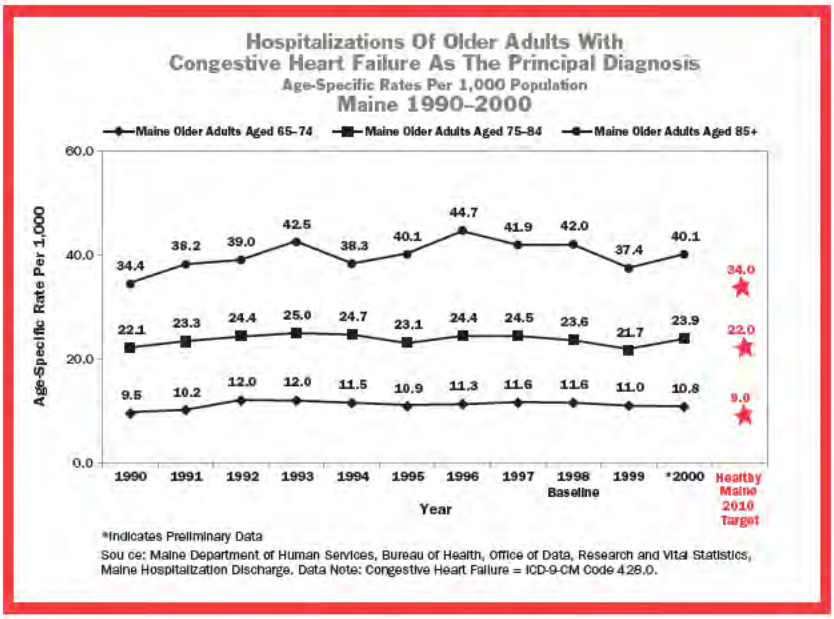
- **12-6 Reduce hospitalization of older adults with congestive heart failure as the principal diagnosis.**

  Age 65-74:
  Healthy Maine 2010 Baseline: 11.6
  Healthy Maine 2010 Target: 9.0

  Age 75-84:
  Healthy Maine 2010 Baseline: 23.6
  Healthy Maine 2010 Target: 22.0

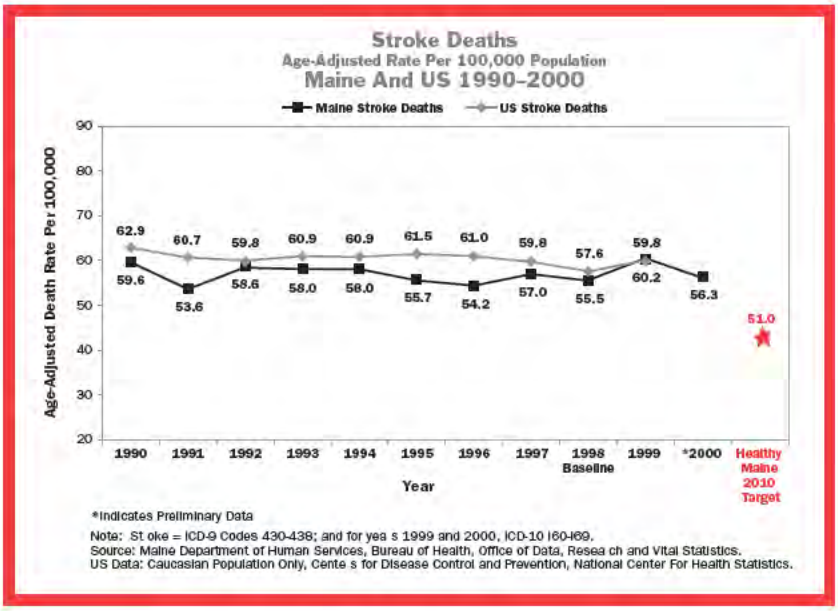
  Age 85+:
  Healthy Maine 2010 Baseline: 42.0
  Healthy Maine 2010 Target: 34.0

  National data indicates that the US rates for hospitalization with the principal diagnosis of congestive heart failure in 1997 was about 13.2 per 1,000 for ages 65 to 74; 26.7 for ages 75 to 84; and 52.7 for ages 85 years and older.



- **12-7 Reduce stroke deaths.**

  Healthy Maine 2010 Baseline: 55.5
  Healthy Maine 2010 Target: 51.0



Cardiovascular disease is the leading cause of death, illness, and health care costs for Maine people.

Key conditions that cause cardiovascular disease:

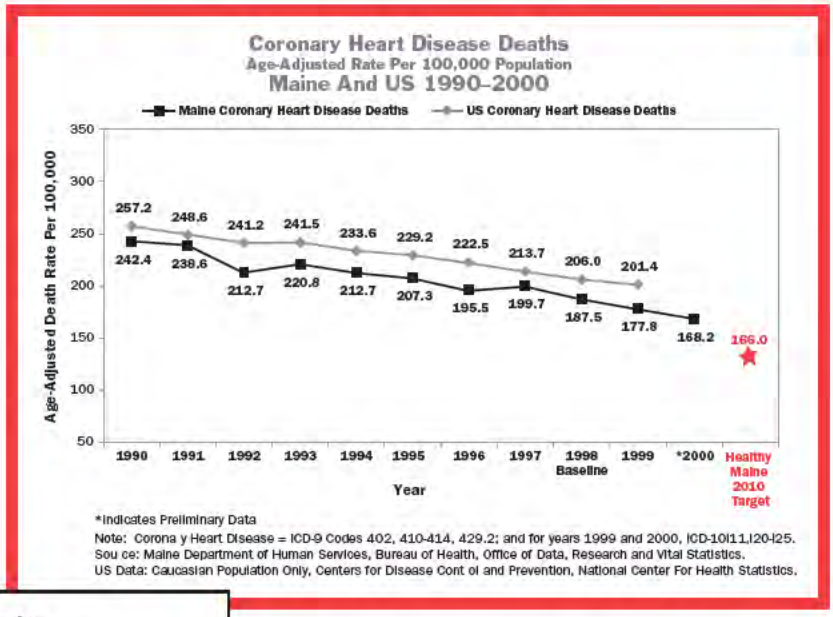
1) High blood pressure

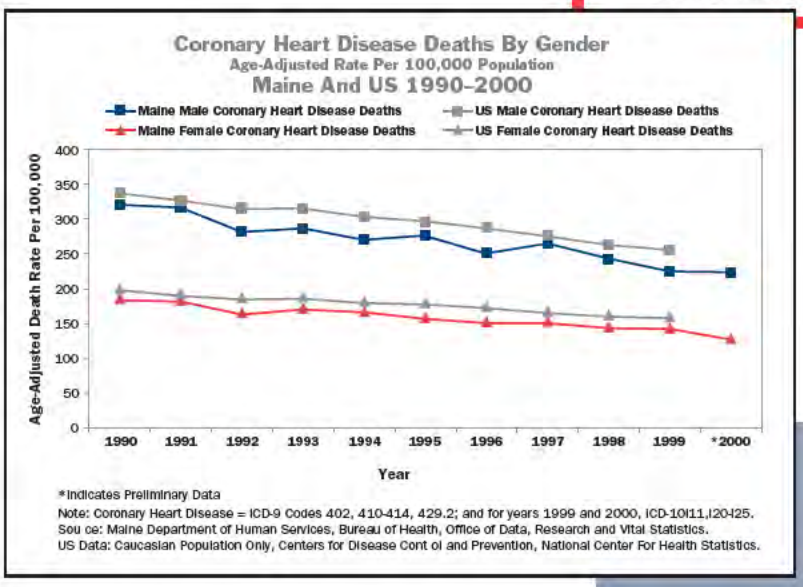
2) High cholesterol

3) Diabetes

- **12-1 Reduce coronary heart disease deaths.**

  Healthy Maine 2010 Baseline: 187.5
  Healthy Maine 2010 Target: 166.0





The health behaviors that cause cardiovascular disease often develop in childhood. The main behaviors are: tobacco consumption, secondhand smoke exposure, physical inactivity, poor nutrition, and maintaining an unhealthy weight.

One-quarter of all Maine hospital charges in 1999 were for cardiovascular disease. Medicare and Medicaid payments cover almost three-quarters (72%) of the hospital charges (MHDO).

CANCER

Cancer is not just one disease, but rather a group of diseases that includes a process of abnormal and uncontrolled growth and spread of cells. Cancers are caused by internal (genetic and hormonal) as well as external (viral, social, environmental) factors. About 7,000 new cancer cases are diagnosed each year in Maine. The United States saw a decline in cancer death rates over the past decade. However, Maine did not experience the same decrease. Cancer is the second leading cause of death in Maine and the nation. Causing about 3,000 deaths every year in Maine, only heart disease causes more deaths than cancer. However, cancer results in the loss of more years of healthy life than heart disease since cancer deaths occur at younger ages.

The good news is that cancer is increasingly a curable and preventable disease. It is estimated that about 50% or more of all cancer can be prevented through tobacco cessation, increased physical activity, weight control, and improved dietary habits such as reducing fat consumption and increasing fruit and vegetable consumption. The five-year survival rate for all cancers is now 62%, and the five-year survival rate for screenable cancers (cervix, colon, rectum, breast, oral, prostate, skin, and testes) is 82%.

Although a reduction in the overall cancer incidence is an objective, it is unlikely to be achieved unless there are significant reductions in the incidences of the four major cancers – breast, prostate, lung, and colorectal. And, this is unlikely to be achieved by 2010. The reasons are several. First, breast and prostate cancer are not known to have significant risk factors for which there are good primary prevention strategies. Second, although about 90% of lung cancer could be prevented over a 10–20 year period if smoking were eliminated, this is unlikely to happen by 2010. Thirdly, colorectal cancers could be reduced if screenings such as colonoscopies are increased significantly, but incidence of this cancer could also temporarily rise because of an increase in early diagnoses of cancer through screenings.

Melanoma and cervical cancers are two cancers that have the potential for significant incidence reductions (melanoma through reduced sunburn exposure and cervical cancer through sexually transmitted disease prevention measures and Pap smears). However, since these cancers are much less common than the above four, reductions in these cancers would only have a minor effect on the overall cancer incidence rate.

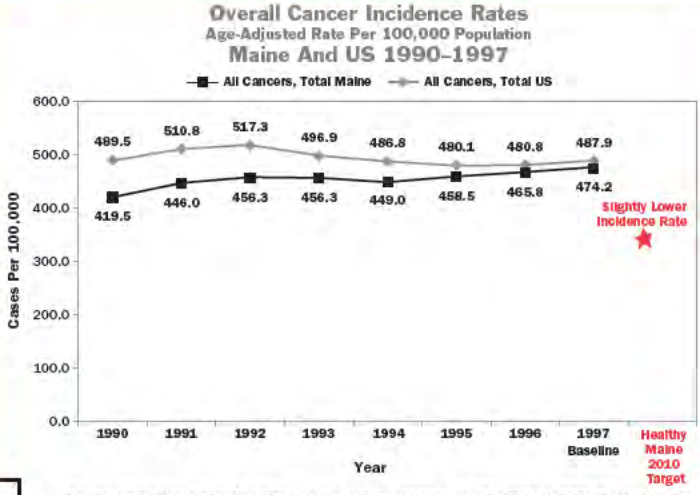
Two types of cancers are worth noting because of Maine-specific issues: non-melanoma skin cancers and bladder cancer. Non-melanoma skin cancers – mostly basal cell carcinoma and squamous cell carcinoma – are the most common malignancies in Caucasians. Although these cancers are most often not reported, therefore we do not know the incidence of these in Maine, it is felt because of Maine's largely Caucasian population that we probably have a proportionately higher burden of these cancers than the rest of the nation. The good news is that these cancers have low mortality rates and are very preventable through reducing skin exposure to the sun. Reducing sun exposure also helps to reduce one's risk of melanoma, a particularly deadly form of skin cancer and one whose incidence rate nationally has increased faster than any other cancer in the 1970s and 1980s.

Maine has the second highest mortality rate in the nation of bladder cancer, and fourth highest in the nation among whites (1995–1998). Half of the cases are probably related to smoking; a quarter to exposures such as to heavy metals or arsenic. A study funded by the National Cancer Institute is underway to more fully analyze Maine's high bladder cancer rates.

- **Reduce the overall cancer incidence rate.**

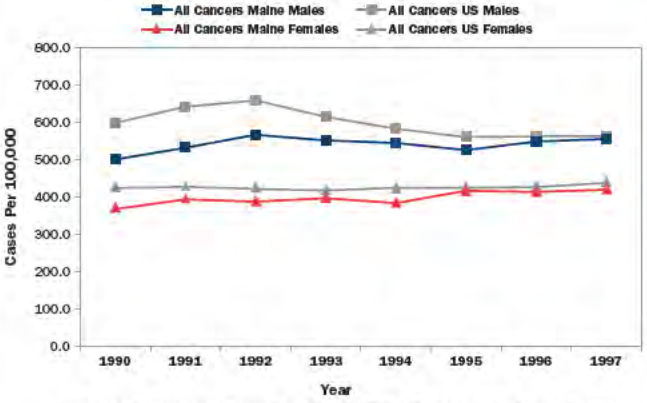
  Beginning in 1995, the Maine Cancer Registry began collecting cases using information from death certificates. This practice increases completeness and may cause an increase in the incidence of cancer. However, any increase is a more accurate reflection of cancer rates in Maine.

  Healthy Maine 2010 Baseline: 474.2
  Healthy Maine 2010 Target: slightly lower incidence rate



Overall Cancer Incidence Rates
Age-Adjusted Rate Per 100,000 Population
Maine And US 1990–1997

Source: Maine Department of Human Services, Bureau of Health, Maine Cancer Registry. SEER (Surveillance Epidemiology and End Results)—Whites only, NCHS (National Center for Health Statistics)—for Maine and for US whites at http://wonder.cdc.gov; Age-adjusted rate per 100,000.



Overall Cancer Incidence Rates By Gender
Age-Adjusted Rate Per 100,000 Population
Maine And US 1990–1997

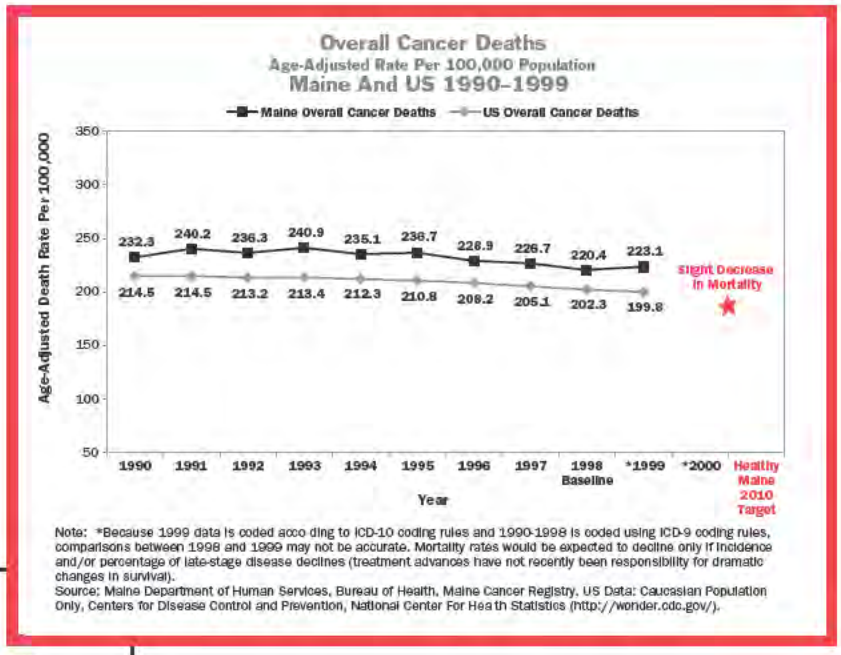
Source: Maine Department of Human Services, Bureau of Health, Maine Cancer Registry. SEER (Surveillance Epidemiology and End Results)—Whites only, NCHS (National Center for Health Statistics)—for Maine and for US whites at http://wonder.cdc.gov; Age-adjusted rate per 100,000.

Cancer death rates in Maine are generally higher than the United States. This could be due to a number of factors, including delays in diagnosis, lack of access to appropriate treatment, and higher incidences of more deadly forms of cancer.

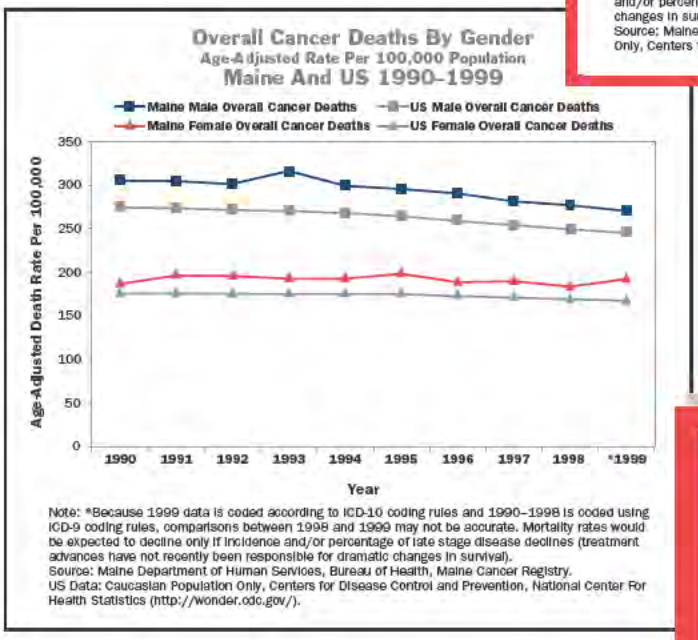
About 7,000 Maine people are diagnosed with cancer every year.

- **3–1 Reduce the overall cancer death rate.**

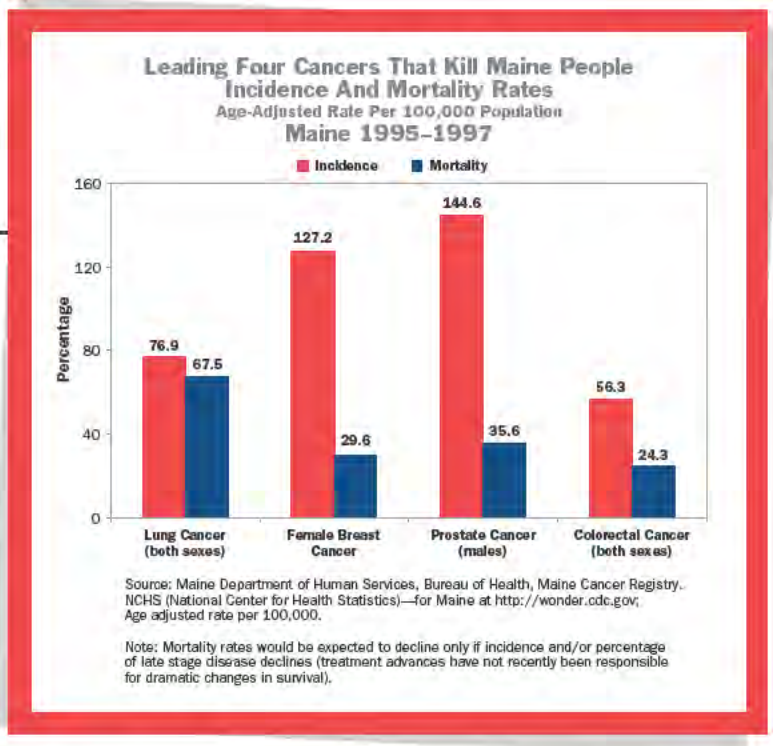
  Healthy Maine 2010 Baseline: 220.4
  Healthy Maine 2010 Target: slight decrease in mortality



Note: *Because 1999 data is coded acco ding to ICD-10 coding rules and 1990-1998 is coded using ICD-9 coding rules, comparisons between 1998 and 1999 may not be accurate. Mortality rates would be expected to decline only if incidence and/or percentage of late-stage disease declines (treatment advances have not recently been responsibility for dramatic changes in survival).
Source: Maine Department of Human Services, Bureau of Health, Maine Cancer Registry. US Data: Caucasian Population Only, Centers for Disease Control and Prevention, National Center For Hea th Statistics (http://wonder.cdc.gov/).



Note: *Because 1999 data is coded according to ICD-10 coding rules and 1990–1998 is coded using ICD-9 coding rules, comparisons between 1998 and 1999 may not be accurate. Mortality rates would be expected to decline only if incidence and/or percentage of late stage disease declines (treatment advances have not recently been responsible for dramatic changes in survival).
Source: Maine Department of Human Services, Bureau of Health, Maine Cancer Registry.
US Data: Caucasian Population Only, Centers for Disease Control and Prevention, National Center For Health Statistics (http://wonder.cdc.gov/).



Source: Maine Department of Human Services, Bureau of Health, Maine Cancer Registry. NCHS (National Center for Health Statistics)—for Maine at http://wonder.cdc.gov; Age adjusted rate per 100,000.

Note: Mortality rates would be expected to decline only if incidence and/or percentage of late stage disease declines (treatment advances have not recently been responsible for dramatic changes in survival).

- **Increase the percentage of cases of cancer detected at local stage.**

Staging Percents For Selected Cancers

Maine* And US (SEER)**

Cancer Site		Local	Regional	Distant	Unknown
Female Breast	US	64.0	28.0	5.0	3.0
	ME	66.8	28.5	3.6	1.1
Cervical	US	56.0	30.0	8.0	6.0
	ME	54.8	34.1	7.2	3.8
Colorectal, Total	US	38.0	38.0	19.0	6.0
	ME	37.2	41.5	17.0	4.3
Colorectal, Males	US	38.0	37.0	20.0	5.0
	ME	37.9	42.0	16.7	3.5
Colorectal, Females	US	37.0	39.0	19.0	6.0
	ME	36.4	41.1	17.4	5.1
Prostate	US	85.0		6.0	9.0
	ME	72.2	15.1	6.9	5.9
Melanoma, Total	US	82.0	9.0	4.0	6.0
	ME	72.3	8.5	2.6	16.6
Melanoma, Males	US	80.0	10.0	4.0	6.0
	ME	73.3	10.1	3.1	13.5
Melanoma, Females	US	84.0	8.0	3.0	5.0
	ME	71.0	6.6	1.9	20.5

Note: Staging does not include in-situ diagnoses.
* The Maine Cancer Registry began collecting summary stage information in 1995. Maine data is from 1995–1997.
**US stage data for the white population only from the 1973–1999 report. SEER data is from 1992–1998.
Source: Maine Cancer Registry, Bureau of Health, Maine DHS.

WHAT IS STAGING OF CANCER?

Staging of cancer is a way of categorizing how far a cancer has spread from its point of origin. Local stage disease is limited to the organ of origin. Regional stage disease has spread beyond the organ of origin into surrounding tissues, organs, or certain lymph nodes. Distant stage disease, metastasis, occurs when tumor cells break away from the tumor of origin and travel to other parts of the body and begin a new growth. Surveillance, Epidemiology, and End Results (SEER) Summary Staging is the current standard used for staging.

CANCER STAGE DISTRIBUTION

Maine-Specific ALL Cancer

Targets: Because the Maine Cancer Registry began collecting staging information in 1995, staging trends are not available for projecting a quantitative 2010 target. For all objectives related to cancer stage at diagnosis, the Healthy Maine 2010 target will be to increase the proportion of cancers detected at the local stage. The survival rate for cancers detected at the local stage is much higher than for cancers detected at the distant stage.

	Stage Distribution[4] Objectives		Healthy Maine Baseline[1]	US Baseline[2]	Healthy Maine 2010 Target[3]
Maine-Specific BREAST Cancer	**Early Detection of Breast Cancer** Increase the percentage of cases detected at local stage.	• Cases detected early (local disease) have about a 96% chance of living for at least five more years. • Cases detected late (disease that has spread to another part of the body) have only a 21% chance of living for five more yea s.	MCR 1995-1997 **Local 66.8%**	SEER 1992-1998 **64.0%**	MCR 1995-2010 **Higher % of local disease**
Maine-Specific CERVICAL Cancers	**Early Detection of Cervical Cancer** Increase the percentage of cases detected at local stage.	• Cases detected early (local disease) have about a 92% chance of living for at least five more years. • Cases detected late (disease that has spread to another part of the body) have only a 15% chance of living for five more yea s.	MCR 1995-1997 **Local 54.8%**	SEER 1992-1998 **56.0%**	MCR 1995-2010 **Higher % of local disease**
Maine-Specific COLO-RECTAL Cancers	**Early Detection of Colorectal Cancer** Increase the percentage of cases detected at local stage.	• Cases detected early (local disease) have about a 90% chance of living for at least five more years. • Cases detected late (disease that has spread to another part of the body) have only an 8% chance of living for five more yea s.	MCR 1995-1997 **Local 37.2%**	SEER 1992-1998 **38.0%**	MCR 1995-2010 **Higher % of local disease**
Maine-Specific PROSTATE Cancers	**Early Detection of Prostate Cancer** Maintain the high rate of cases detected at local stage.	• Cases detected early (local disease) have about a 100% chance of living for at least five more years. • Cases detected late (disease that has spread to another part of the body) have only a 34% chance of living for five more yea s.	MCR 1995-1997 **Local 72.2%** **Local/Regional 87.3%**	SEER 1992-1998 **No data for local disease** **85.0%**	MCR 1995-2010 **Same % of local disease**
Maine-Specific MELANOMA Cancers	**Early Detection of Melanoma Cancer** Increase the percentage of cases detected at local stage.	• Cases detected early (local disease) have about a 96% chance of living for at least five more years. • Cases detected late (disease that has spread to another part of the body) have only a 12% chance of living for five more yea s.	MCR 1995-1997 **Local 72.3%** (May be artificially low because of high rates of unknown stage in the database)	SEER 1992-1998 **82.0%**	MCR 1995-2010 **Higher % of local disease**

[1] Data Sou ces: MeBRFSS (Maine Behavioral Risk Factor Surveillance Survey). MCR (Maine Cancer Regist y). SEER (Surveillance Epidemiology and End Results) – whites only. NCHS (National Center for Health Statistics) – for Maine and for US whites at http://wonder.cdc.gov; N.B. Mortality rates for Maine and the US were obtained from the same sou ce so they would be comparable; however, mortality rates for Maine seen elsewhere which generated by the BOH ODRVS may be slightly different, depending on when the rates are calculated and population estimates used.

[2] National comparison figures are not currently available for BRFSS Prevention and Screening Behavio s, because the measures we have chosen for Maine combine responses for more than one BRFSS question. For example, of all the women 50+ surveyed we wanted to know who reported having had a mammogram within the past two years AND having had a CBE in the past two years, because we are attempting to approximate compliance with actual screening recommendations. This data is not easily obtained from the national web site for the country as a whole.

[3] Ta gets have been selected based on a combination of the following information, as available: external (national) comparison figures; internal (Maine) time trends; and expectations about what interventions will be in place to realistically change prevention and early detection behaviors. Ta gets may represent absolute numbers or simply a trend (imp ovement or no worsening); numbers or trends may need to be determined by rolling averages or measures for aggregated yea s due to small numbers.

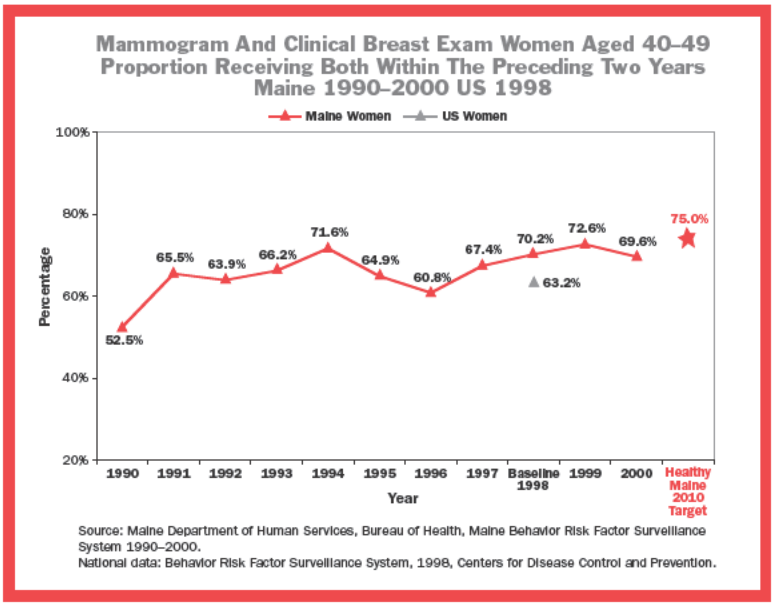
[4] Stage at diagnosis is the extent to which a cancer has progressed when the cancer is first diagnosed. The Maine Cancer Registry uses SEER Summa y Stage, which defines a localized cancer as one, which is limited to the organ of origin. Survival rates for patients w th local disease are significantly better than for those w th regional disease (extended beyond the limits of the organ of origin) or distant disease (cancer which has traveled to another part of the body and is no longer connected to the original tumor).

BREAST CANCER

- **3–13 Increase the proportion of women who report receiving both a mammogram and a clinical breast examination in the past two years (for women aged 40–49) and in the past one year (for women aged 50 and over).**

3–13a Increase the proportion of women ages 40–49 who report receiving both a mammogram and a clinical breast examination in the past two years.

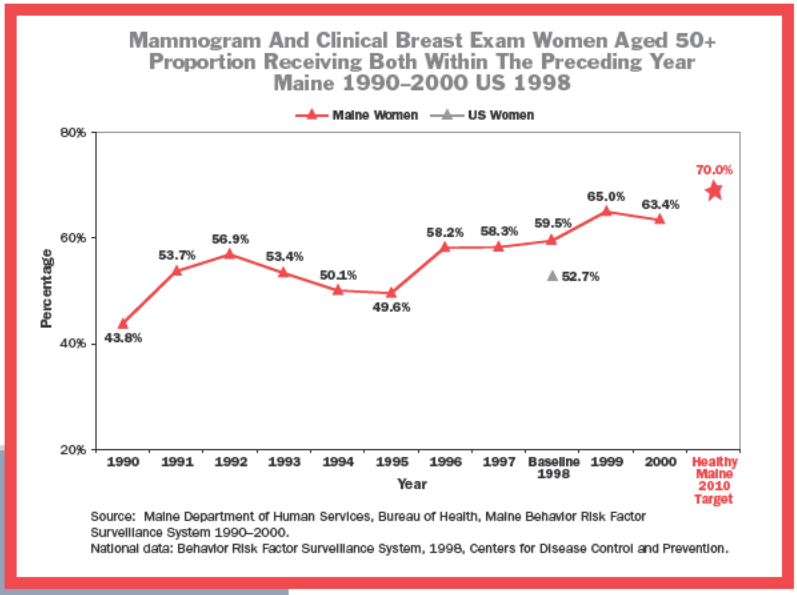
Healthy Maine 2010 Baseline: 70%
Healthy Maine 2010 Target: 75%



Source: Maine Department of Human Services, Bureau of Health, Maine Behavior Risk Factor Surveillance System 1990–2000.
National data: Behavior Risk Factor Surveillance System, 1998, Centers for Disease Control and Prevention.

3–13b Increase the proportion of women age 50 and over who report receiving both a mammogram and a clinical breast examination in the past one year.

Healthy Maine 2010 Baseline: 59%
Healthy Maine 2010 Target: 70%

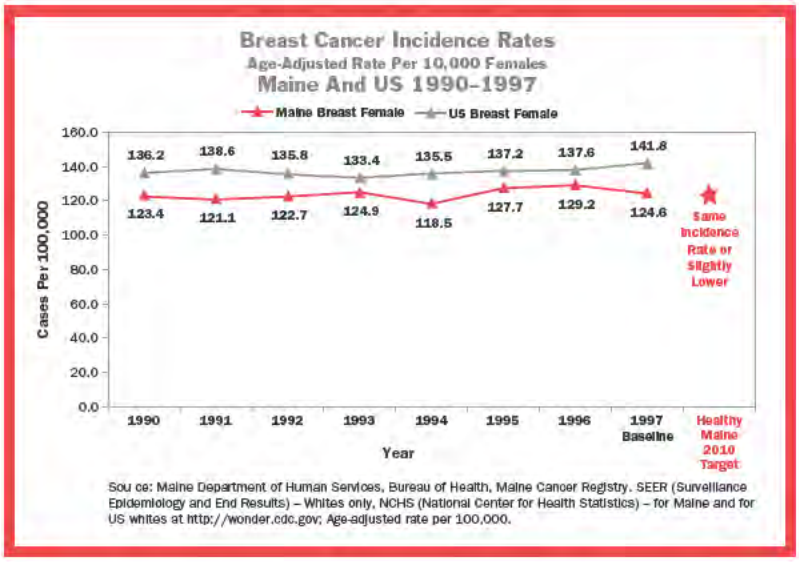


Source: Maine Department of Human Services, Bureau of Health, Maine Behavior Risk Factor Surveillance System 1990–2000.
National data: Behavior Risk Factor Surveillance System, 1998, Centers for Disease Control and Prevention.

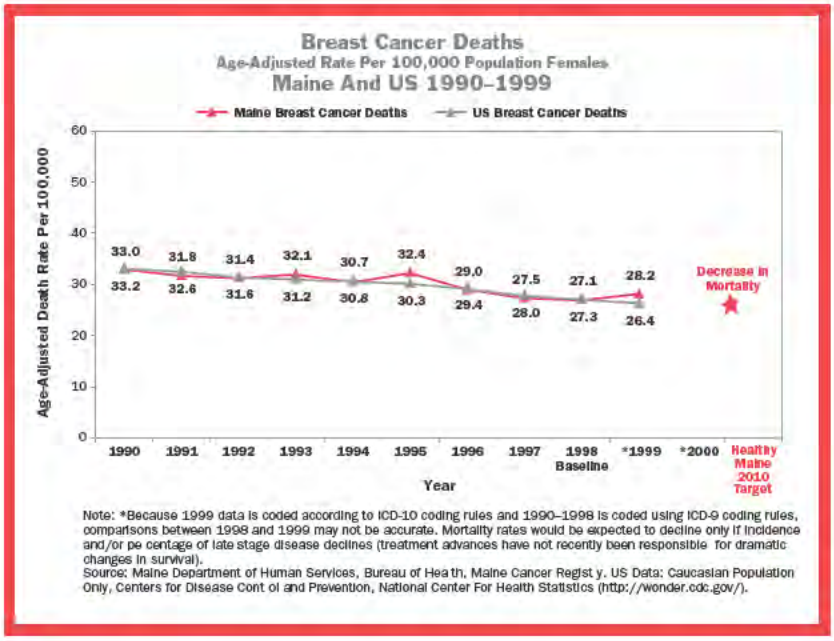
The five-year survival rate for all cancers is 62% and the five-year survival rate for screenable cancers (cervical, colon, rectum, breast, oral, prostate, skin, and testes) is 82%.

- **Reduce the breast cancer incidence rate.**

  Healthy Maine 2010 Baseline: 124.6
  Healthy Maine 2010 Target: same incidence rate or slightly lower



Source: Maine Department of Human Services, Bureau of Health, Maine Cancer Registry. SEER (Surveillance Epidemiology and End Results) – Whites only, NCHS (National Center for Health Statistics) – for Maine and for US whites at http://wonder.cdc.gov; Age-adjusted rate per 100,000.



Note: *Because 1999 data is coded according to ICD-10 coding rules and 1990–1998 is coded using ICD-9 coding rules, comparisons between 1998 and 1999 may not be accurate. Mortality rates would be expected to decline only if incidence and/or percentage of late stage disease declines (treatment advances have not recently been responsible for dramatic changes in survival).
Source: Maine Department of Human Services, Bureau of Health, Maine Cancer Registry. US Data: Caucasian Population Only, Centers for Disease Control and Prevention, National Center For Health Statistics (http://wonder.cdc.gov/).

- **3–3 Reduce the breast cancer death rate.**

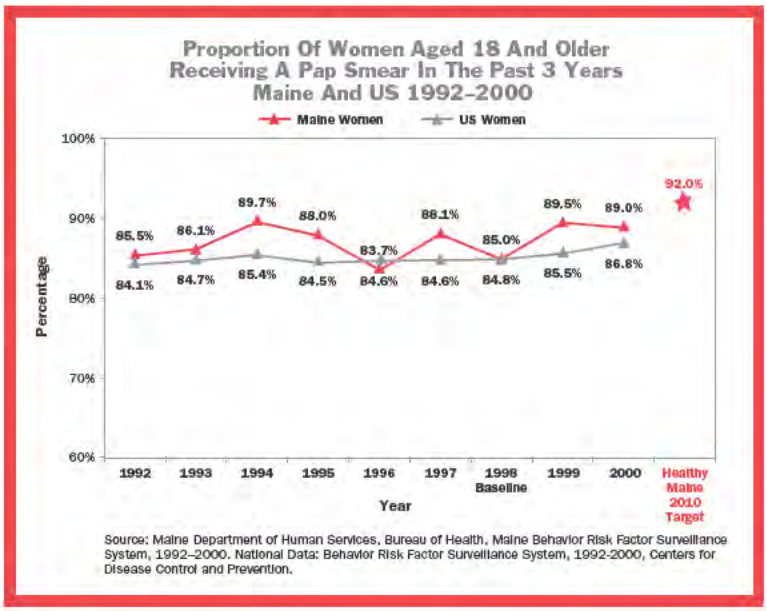
  Healthy Maine 2010 Baseline: 27.1%
  Healthy Maine 2010 Target: decrease in mortality

CERVICAL CANCER

- **3–11 Increase the proportion of women who receive a Pap test in the past 3 years.**

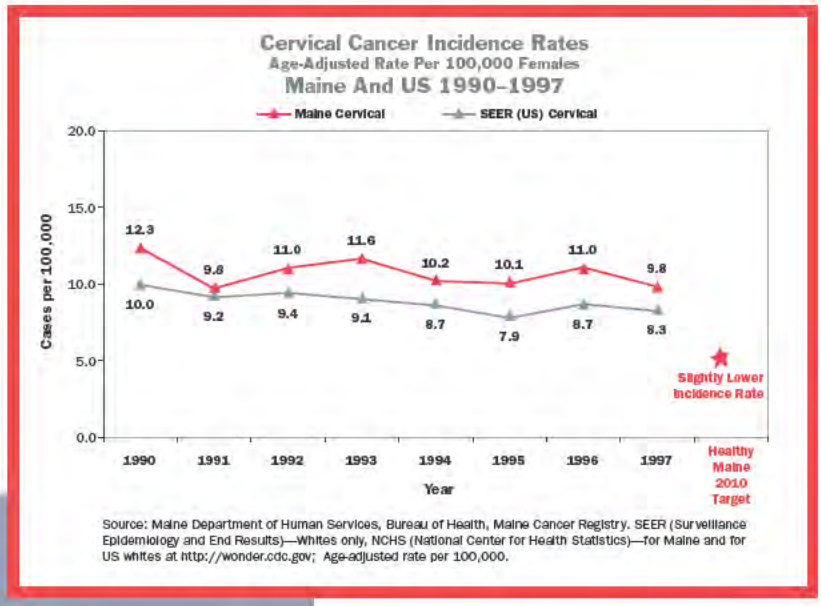
  Healthy Maine 2010 Baseline: 85%
  Healthy Maine 2010 Target: 92%

  Survey question is asked only of women who have a uterine cervix. Similar national data indicate that an estimated 79% of women in 1998 had had a Pap smear in the previous three years.



- **Reduce the cervical cancer incidence rate.**

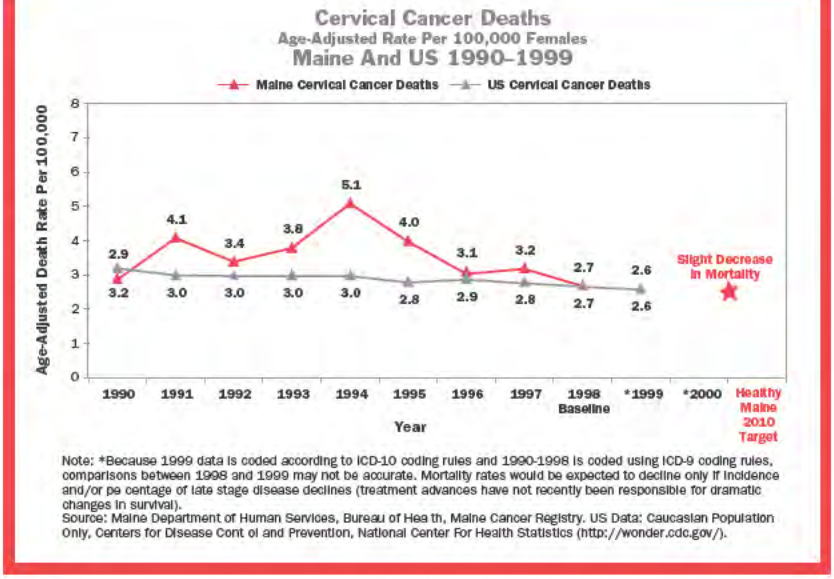
  Healthy Maine 2010 Baseline: 9.8
  Healthy Maine 2010 Target: slightly lower incidence rate



Cervical cancer deaths could essentially be eliminated by expanded screening and greater control of human papillomavirus.

- **3–4 Reduce the cervical cancer death rate.**

  Healthy Maine 2010 Baseline: 2.7%
  Healthy Maine 2010 Target: slight decrease in mortality



Note: *Because 1999 data is coded according to ICD-10 coding rules and 1990-1998 is coded using ICD-9 coding rules, comparisons between 1998 and 1999 may not be accurate. Mortality rates would be expected to decline only if incidence and/or pe centage of late stage disease declines (treatment advances have not recently been responsible for dramatic changes in survival).
Source: Maine Department of Human Services, Bureau of Hea th, Maine Cancer Registry. US Data: Caucasian Population Only, Centers for Disease Cont ol and Prevention, National Center For Health Statistics (http://wonder.cdc.gov/).

HOW IMPORTANT IS IT TO DETECT CANCER IN ITS EARLY STAGES?

People with early detected Breast Cancer (disease is found local, i.e., in the breast only) have about a 96% chance of living at least five years; those with disease detected late (cancer has spread to another part of the body) have only a 21% chance of living at least five years.

People with early detected Colorectal Cancer have about a 90% chance of living at least five years; detected late, only 8% chance.

People with early detected Cervical Cancer have about a 92% chance of living at least five years; detected late, only 15%.

People with early detected Prostate Cancer have about a 100% chance of living at least five years; detected late, only 34%.

People with early detected Melanoma have about a 96% chance of living at least five years; detected late, only 12%.

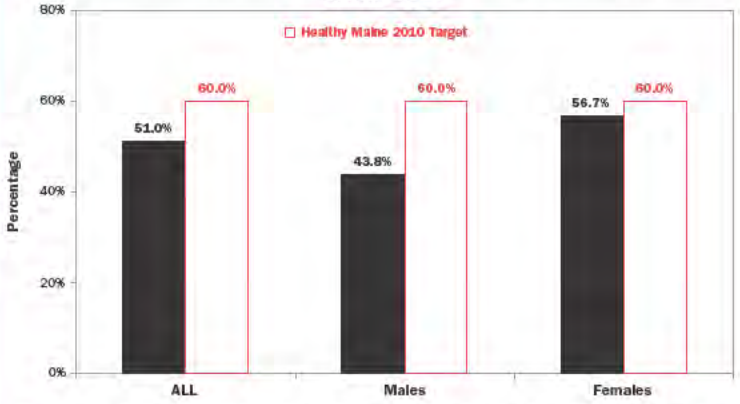
COLORECTAL CANCER

Although Maine has a higher rate of colon cancer screening than the US as a whole, it has the highest mortality rate in the country.

- **3–12 Increase the proportion of Maine adults 50 and over who report having a fecal occult blood test in the past 2 years or having had a sigmoidoscopy or colonoscopy in the past 5 years.**

  Healthy Maine 2010 Baseline: 51%
  Healthy Maine 2010 Target: 60%

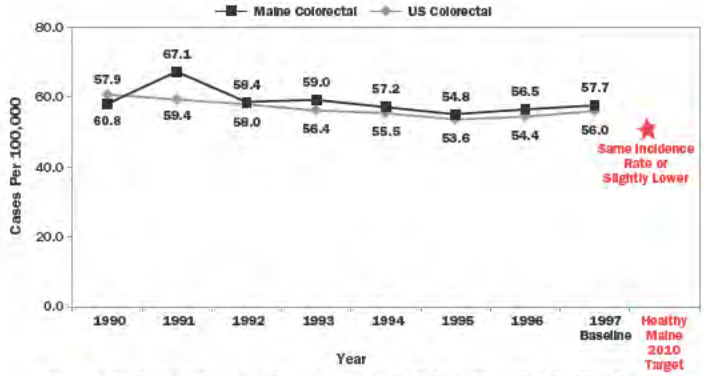
  Similar national data indicates that in 1999 an estimated 35% of people 50 years and older had a fecal occult blood test in the preceding two years and that 37% had ever had a sigmoidoscopy.



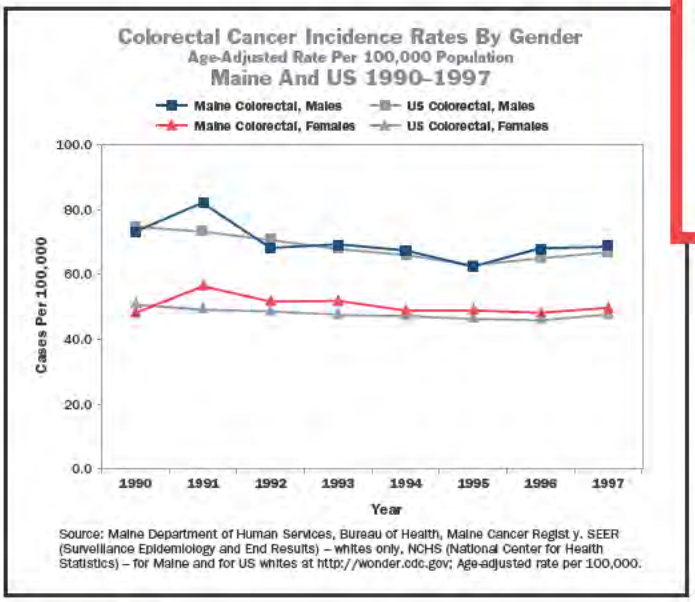
Source: Maine Department of Human Services, Bureau of Health, Maine Behavior Risk Factor Surveillance System, 1999.

- **Reduce the colorectal cancer incidence rates.**

  Healthy Maine 2010 Baseline: 57.7%
  Healthy Maine 2010 Target: same or slightly lower incidence rate



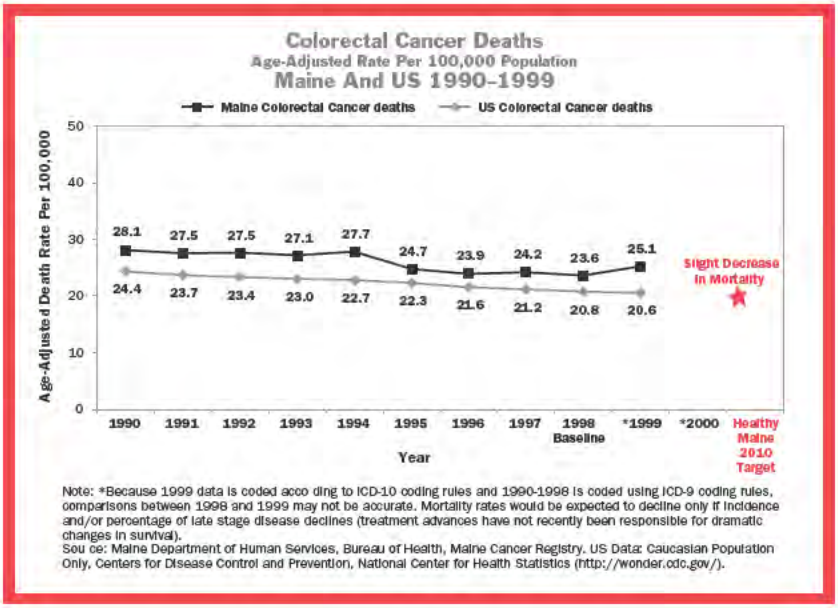
Source: Maine Department of Human Services, Bureau of Hea th, Maine Cancer Regist y. SEER (Surveillance Epidemiology and End Results) – whites only, NCHS (National Center for Health Statistics) – for Maine and for US whites at http://wonder.cdc.gov; Age-adjusted rate per 100,000.



Source: Maine Department of Human Services, Bureau of Health, Maine Cancer Regist y. SEER (Surveillance Epidemiology and End Results) – whites only, NCHS (National Center for Health Statistics) – for Maine and for US whites at http://wonder.cdc.gov; Age-adjusted rate per 100,000.

- **3–5 Reduce the colorectal cancer death rate.**

  Healthy Maine 2010 Baseline: 23.6
  Healthy Maine 2010 Target: slight decrease in mortality rate

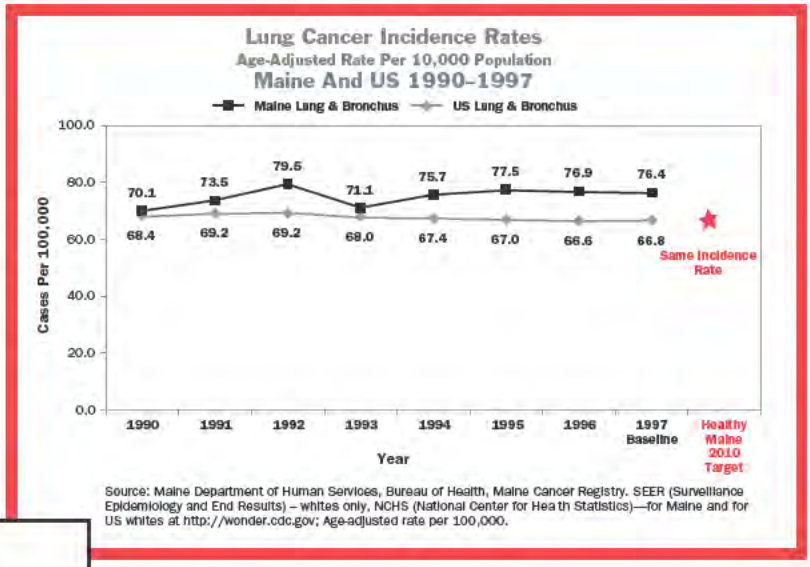


Note: *Because 1999 data is coded acco ding to ICD-10 coding rules and 1990-1998 is coded using ICD-9 coding rules, comparisons between 1998 and 1999 may not be accurate. Mortality rates would be expected to decline only if incidence and/or percentage of late stage disease declines (treatment advances have not recently been responsible for dramatic changes in survival).
Sou ce: Maine Department of Human Services, Bureau of Health, Maine Cancer Registry. US Data: Caucasian Population Only, Centers for Disease Control and Prevention, National Center for Health Statistics (http://wonder.cdc.gov/).

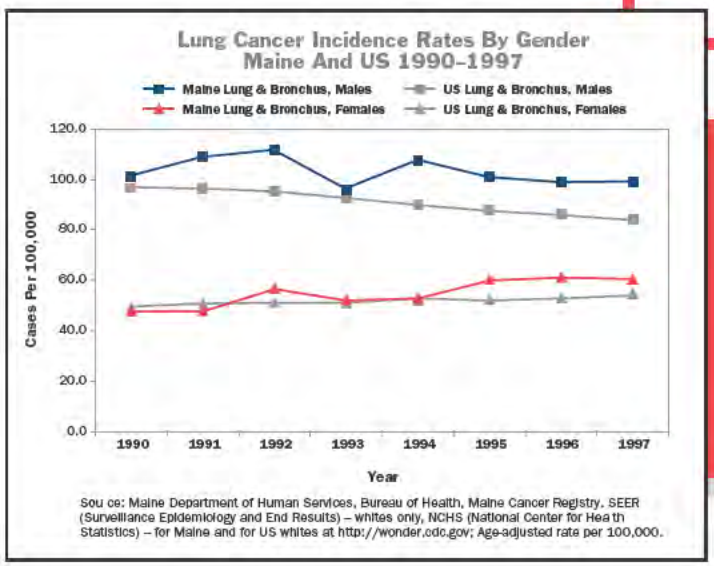
LUNG CANCER

- **Reduce the lung cancer incidence rate.**

  Healthy Maine 2010 Baseline: 76.4
  Healthy Maine 2010 Target: same or slightly lower incidence rate



Source: Maine Department of Human Services, Bureau of Health, Maine Cancer Registry. SEER (Surveillance Epidemiology and End Results) – whites only, NCHS (National Center for Hea th Statistics)—for Maine and for US whites at http://wonder.cdc.gov; Age-adjusted rate per 100,000.

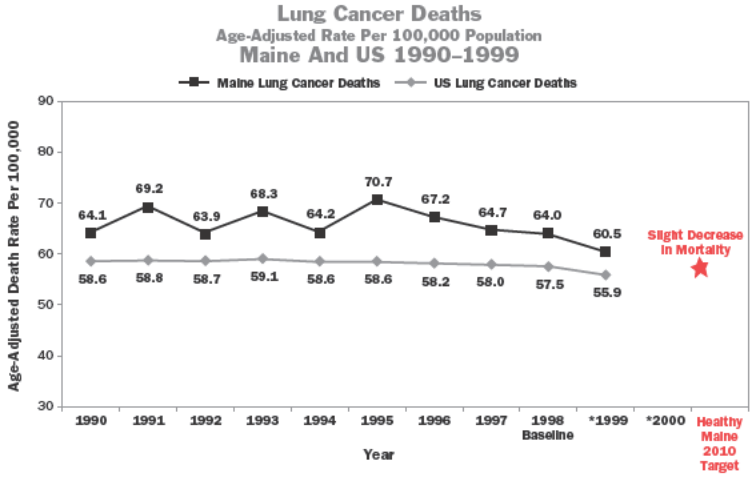


Sou ce: Maine Department of Human Services, Bureau of Health, Maine Cancer Registry. SEER (Surveillance Epidemiology and End Results) – whites only, NCHS (National Center for Hea th Statistics) – for Maine and for US whites at http://wonder.cdc.gov; Age-adjusted rate per 100,000.

Lung cancer is the leading cause of cancer deaths, killing about 900–1,000 Maine people every year. Yet about 90% of lung cancer could be prevented over a 10–20 year period if smoking were eliminated.

- **3–2 Reduce the lung cancer death rate.**

  Healthy Maine 2010 Baseline: 64.0%
  Healthy Maine 2010 Target: slight decrease in mortality



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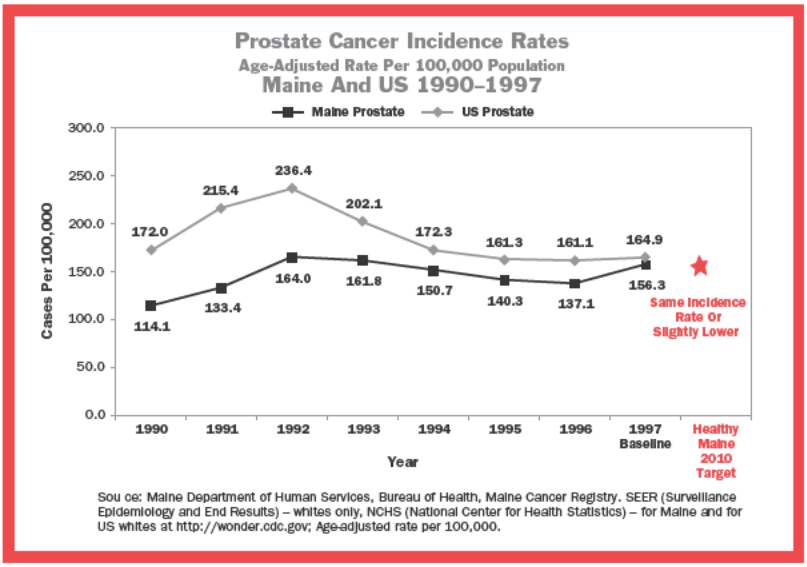
Sou ce: Maine Department of Human Services, Bureau of Health, Maine Cancer Registry. US Data: Caucasian Population Only, Centers for Disease Control and Prevention, National Center for Health Statistics (http://wonder.cdc.gov/).

Since 1987, more women in the US die from lung cancer than from breast cancer.

PROSTATE CANCER

- **Reduce the prostate cancer incidence rate.**

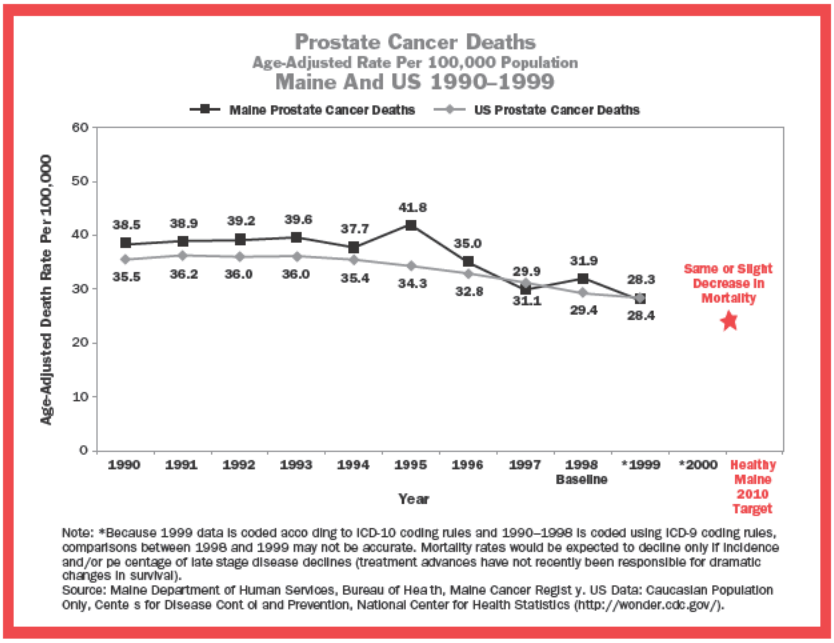
  Healthy Maine 2010 Baseline: 156.3
  Healthy Maine 2010 Target: same incidence rate or slightly lower



Sou ce: Maine Department of Human Services, Bureau of Health, Maine Cancer Registry. SEER (Surveillance Epidemiology and End Results) – whites only, NCHS (National Center for Health Statistics) – for Maine and for US whites at http://wonder.cdc.gov; Age-adjusted rate per 100,000.

- **3–7 Reduce the prostate cancer death rate.**

  Healthy Maine 2010 Baseline: 31.9%
  Healthy Maine 2010 Target: same or slight decrease in mortality



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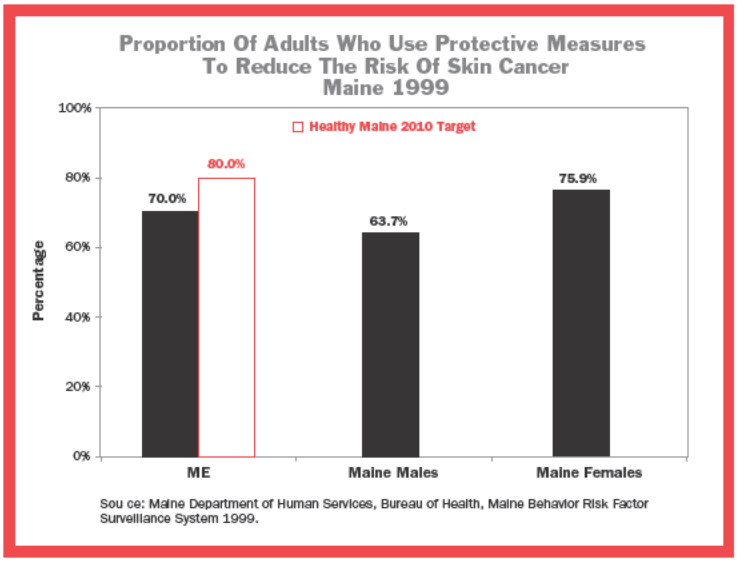
Source: Maine Department of Human Services, Bureau of Hea th, Maine Cancer Regist y. US Data: Caucasian Population Only, Cente s for Disease Cont ol and Prevention, National Center for Health Statistics (http://wonder.cdc.gov/).

Melanoma is a particularly deadly form of skin cancer whose incidence rate nationally has increased faster than any other cancer in the 1970s and 1980s. Reducing sun exposure reduces one's risk for melanoma as well as other skin cancers.

SKIN CANCER

- **3–9 Increase the proportion of persons who use at least one protective measure that may reduce risk of skin cancer.**

  Healthy Maine 2010 Baseline: 70%
  Healthy Maine 2010 Target: 80%

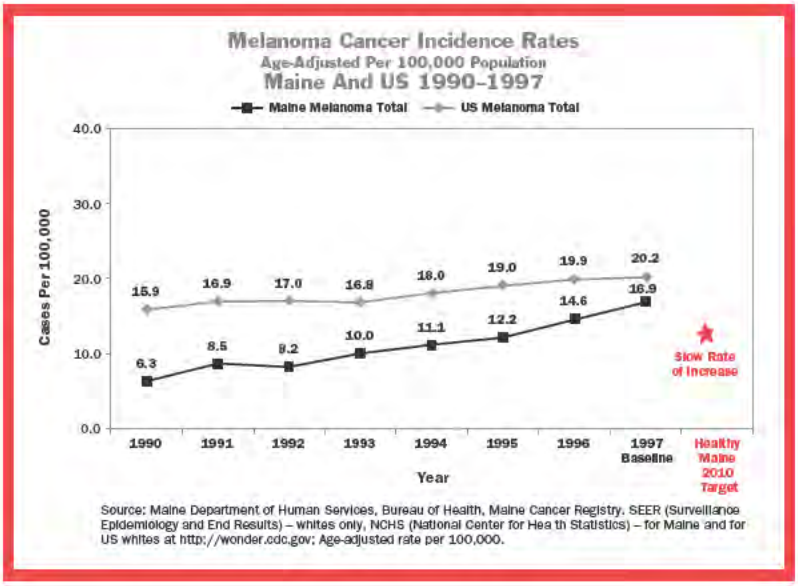


Sou ce: Maine Department of Human Services, Bureau of Health, Maine Behavior Risk Factor Surveillance System 1999.

Protective measures include avoiding the sun by staying in the shade when outside during a sunny day for more than one hour between 10 AM and 4 PM; wearing protective clothing such as a long-sleeved shirt or wide-brimmed hat when exposed to sunlight; or using sunscreen with a sun protective factor of 15 or higher. National data not completely comparable to Maine's from 1998 indicate that about 47% of adults regularly use at least one of these measures, including avoiding artificial sources of ultraviolet light. Maine's data show that women are more likely to use some type of protection from the sun than men.

- **Reduce the melanoma cancer incidence rates.**

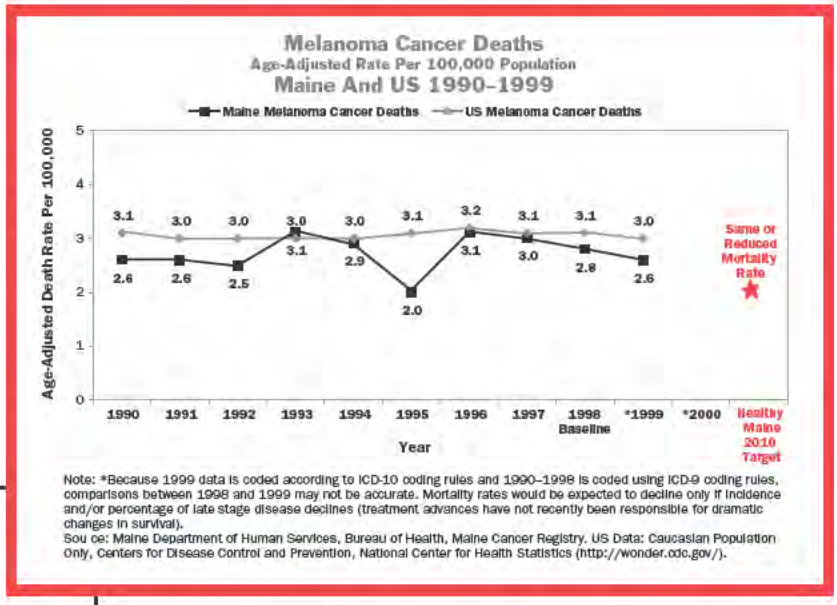
  Healthy Maine 2010 Baseline: 16.9
  Healthy Maine 2010 Target: slowing rate of increase



Source: Maine Department of Human Services, Bureau of Health, Maine Cancer Registry. SEER (Surveillance Epidemiology and End Results) – whites only, NCHS (National Center for Hea th Statistics) – for Maine and for US whites at http://wonder.cdc.gov; Age-adjusted rate per 100,000.

- **3–8 Reduce the melanoma cancer death rate.**

  Healthy Maine 2010 Baseline: 2.8
  Healthy Maine 2010 Target: same or reduced mortality rate



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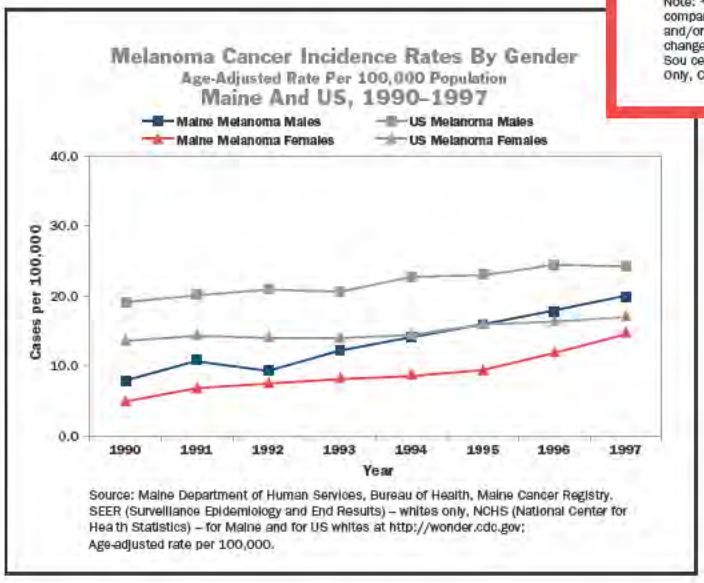


Source: Maine Department of Human Services, Bureau of Health, Maine Cancer Registry. SEER (Surveillance Epidemiology and End Results) – whites only, NCHS (National Center for Hea th Statistics) – for Maine and for US whites at http://wonder.cdc.gov: Age-adjusted rate per 100,000.

CHRONIC MUSCULOSKELETAL CONDITIONS

Osteoporosis: Osteoporosis, a reduction in bone mass that results in deteriorated and fragile bones, is a leading cause of disability among our elderly, especially women. One in three women and one in eight men over the age of 50 will experience an osteoporotic-related fracture sometime in their lifetime, often leading to functional impairment such as a long-term inability to walk (as a result from hip fractures half the time). With prevention measures, early detection and treatment such as pharmaceuticals and exercise, osteoporosis' impact can be significantly diminished.

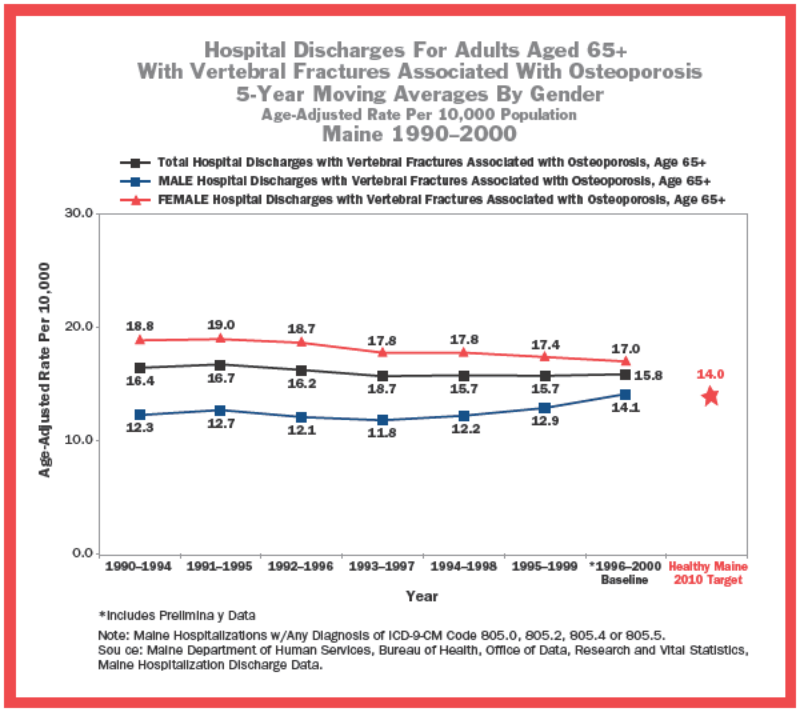
Low Back Pain: With an estimated 80% of all Americans expected to have significant back pain sometime in their lives, low back pain is the most frequent cause of activity limitation in people under the age of 45, the second most common reason for physician visits, and the third most common reason for surgical procedures. Work-related risk factors, such as heavy physical work, lifting, awkward postures, account for 28%–50% of the low back problems in adults. Preventable risk factors for back pain also include overweight, lack of physical fitness, and tobacco addiction. Despite the enormous impact of low back pain, we lack ways to measure ongoing impact and outcomes since we lack standard definitions for low back pain as well as a single source for tracking its prevalence and incidence.

Arthritis: Arthritis is one of the most common conditions in the United States, affecting about one in five of all adults. It is a leading cause of disability, and trails only heart disease as a cause of work disability. Although rarely a direct cause of death, arthritis disrupts one's quality of life – causing economic loss (through decreases in ability to work and high medical costs, especially with the high cost of new prescription medications), limitations in activities, burdens on caregivers, and negative effects on one's mental health.

- **2–10 Reduce the proportion of adults hospitalized for vertebral fractures associated with osteoporosis.**

  Healthy Maine 2010 Baseline: 15.8
  Healthy Maine 2010 Target: 14.0

  National data reported in *Healthy People 2010* from 1998 indicates a national rate of about 17.5 per 10,000 adults per population aged 65 years and older.



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Cameron Bopp, MD

Dr. Cameron Bopp used his influence as a community leader to found one of Maine's first Healthy Community Coalitions.

"If we all band together, we're much more likely to succeed as a community and everyone will benefit," says Cameron Bopp, M.D. Guided by this vision, Dr. Bopp established Maine's first Healthy Community Coalition in Franklin County. An early proponent of community medicine, he recognized the need for citizens to join forces in promoting better health and quality of life. He used his credibility and expertise as a physician and community leader to make Franklin County a model for positive change.

Dr. Bopp traces his concept for the Coalition back to the 1980s when he was an emergency doctor at Franklin Memorial Hospital. In that role and during his term as chairman of the Franklin County Children's Task Force, he studied issues surrounding child abuse. Through his research, he discovered many causative factors linking child abuse, obesity, cardiovascular disease, alcoholism, and other problems rooted in preventable behaviors. He began to look at all of these issues in the context of broader community concerns.

"So many preventable health issues have common risk factors including low socioeconomic status and poor self-esteem," says Dr. Bopp. "If we're really going to have an effect, it will be on a

generation of people supported by the entire community. Ideally, intervention for high-risk groups would start early with prenatal and parenting classes, a good Head Start program, and enrichment programs followed up by comprehensive K–12 health education curriculums. At the same time parents should be getting parallel messages from their doctors, at their work sites and from the media."

Dr. Bopp assembled a broad base of community stakeholders to develop a unified strategy. He recruited social workers, healthcare professionals, the police chief, school superintendents, and other community leaders to serve as core members of the Coalition. These civic leaders had seen many categorical programs sweep through the community without making much of an impact. In each case, program organizers would start from scratch – spending a year on needs assessment, gathering demographic data, and trying to pull together community support – but there wasn't enough capacity at the local level to make these programs succeed. Members of the Coalition were determined to learn from these mistakes. They came up with a set of organizing principles that involved sharing data, pooling resources, coordinating grant-getting efforts, identifying supportable programs, and ultimately building a community network.

"So many preventable health issues have common risk factors including low socioeconomic status and poor self-esteem," says Dr. Bopp.

Dr. Bopp used his skills as a doctor to analyze local health problems and data, to pick best practices that would work well locally and to study International Healthy Cities and other coalition models. By combining the best of many models, ideas and perspectives, Dr. Bopp and his team launched The Healthy Maine Coalition of Franklin County in 1990.

Since that time, Dr. Bopp reports that the Coalition has thrived. "We have a full-time staff, we bring in a lot of grant money, we network well within the community, and we conduct many innovative programs that make a real difference. We also succeeded in getting public health on the agenda of Franklin Memorial Hospital, one of the most important institutions in the area," he says. Franklin County now has significant capacity when compared with other rural communities in the state. As a result, many Coalition projects become self-sufficient since there are factions in place to run them. Another key to the Coalition's success is Dr. Bopp's adherence to Continued Quality Improvement, a technique for measuring, remeasuring, and continuously refining your processes on the basis of your data.

"The Coalition's greatest success is helping give Franklin County a 'can-do' attitude when it comes to identifying and solving our own problems, and every time we have a success, the networks and relationships that we've built help the next task succeed," says Dr. Bopp.

Several communities in Maine have followed Franklin County's lead and started their own Healthy Community Coalitions. For those considering taking this step, Dr. Bopp offers some basic advice. "Read the literature, go to national conferences to hear what the experts in the field are saying, and look for the best practices. Make sure there is support for what you want to do, think big, and build a good team that's broad-based and has a lot of perspective. It's just perseverance after that."

The Coalition conference, January, 2002 *(pages 55 and 56).*

Environmental Health

GOAL

Promote health for all through a healthy environment.

Overview

Exposure to hazardous agents in our air, water, soil, and food, and to physical hazards in the environment are major contributors to illness, disability, and death worldwide, causing an estimated 25% of all preventable ill health in the world. Outdoor air pollution alone is associated with an estimated 50,000 deaths annually nationwide. Maintaining safe drinking water in public drinking water systems also poses challenges since many of the known contaminants include difficult-to-detect protozoa and chemicals. Bacterial contamination continues to be the most frequently detected contaminant in both public and private drinking water. With over half (56%) of Maine residents drinking from private wells, we face challenges in assuring both public and private water sources are safe.

Although we are usually exposed to outdoor air pollution and drinking water from sources outside our immediate surroundings, most of our exposure to environmental health hazards will occur within our home or place of work or school. For instance, indoor air quality is an increasing concern in places with inadequate heating, cooling, and ventilation systems, in places where tobacco smoke is allowed, where radon is common, and where structural defects cause moisture buildup with resulting mold and other contaminants. Exposures to lead, mercury in fish, and pesticides are most likely to occur in people's homes or yards. Strategies to reduce these exposures often depend on communicating risk to the public and motivating them to test, mitigate, or otherwise reduce their risk.

PRIMARY
SECONDARY
TERTIARY

Strategies

- **Reduce non-point source pollutants** such as automobile exhaust, backyard trash burning, wood smoke, and tobacco smoke.
- **Minimize reliance on pesticides and reduce pesticide exposure.**
- **Reduce exposure to groundwater pollutants** arising from petroleum-related spills.
- **Reduce mercury emissions** locally, regionally, and nationally.
- **Reduce lead exposure,** especially to children, pregnant women, and workers.
- **Promote healthy fish eating,** especially in those at risk for the most harmful effects from mercury exposure – pregnant women, children, and people who eat a lot of fish (Native Americans, for example).
- **Evaluate and mitigate at-risk buildings,** such as office buildings, schools, and residences for indoor air quality problems.
- **Test and mitigate homes** (air and private well water) for radon.
- **Test and mitigate private well water** for contaminants such as bacteria, arsenic, uranium, radon, and manganese.
- **Screen children and high-risk adults** (such as construction workers and bridge painters) for lead exposure.
- **Treat those who have been exposed** to environmental toxins – lead poisoning, for example.

Health Disparities

(Populations at risk for experiencing environmental health problems, based on national data in *Healthy People 2010*)

- **Pregnant women and young children** (Unborn and young children are more susceptible to the effects of mercury, lead, and other chemicals such as dioxins and PCBs.)
- **People living in Southern Maine and along much of Maine's coast** (higher risk for ground-level ozone exposure during the summer)
- **People living in rental housing** (higher risk for lead exposure, indoor air quality problems, and pesticide exposure)
- **People drinking from a private well** (higher risk for exposure to toxicants such as arsenic, radon, and uranium from drinking water)
- **Agriculture workers** (higher risk for pesticide exposure)
- **Construction workers** who work with older buildings and homes (higher risk for lead exposure)
- **Native Americans, some immigrants, subsistence fishermen, and their family members** (more likely to consume large quantities of freshwater fish, and; therefore, be exposed to excess mercury)
- **Low Socioeconomic Status** (People living with low income or educational attainment are more likely to be exposed to environmental toxicants such as lead and pesticides, or live near hazardous sites.)

Objectives

Objective numbers are *Healthy People 2010* objective numbers.

- **(Developmental) Develop plans and components of a standards-based, coordinated, integrated Environmental Public Health Tracking system that allows linkage and reporting of health effects data with human exposure data and environmental hazard data.**
- **8–26 (Developmental) Improve the quality, utility, awareness, and use of existing information systems for environmental health.**

  Public health practitioners in Maine have long recognized that there is a significant gap in the State's ability to track diseases triggered or exacerbated by environmental causes. Further, although data is available on air pollution, water contamination, and other sources of risk, there is currently no way to link this data to health effects. The Bureau of Health received notice of an award in September 2002, of an environmental health tracking grant from the Centers for Disease Control and Prevention. This grant should help the Bureau and its partners achieve these two developmental objectives.

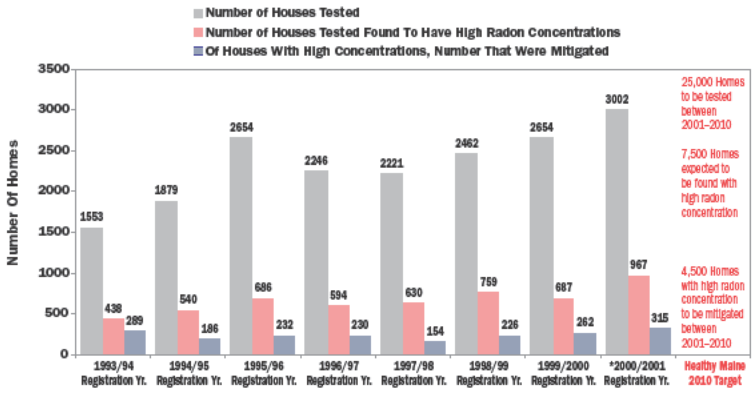
AIR AND WATER QUALITY

Indoor Air Quality – Radon

- **8–18 Increase the proportion of persons whose homes and workplaces are tested for radon concentrations.**

8–18a Increase the number of Maine homes tested for radon.

Healthy Maine 2010 Baseline: 18,671 homes tested since 1993
Healthy Maine 2010 Target: 43,671 total homes tested (25,000 additional homes)



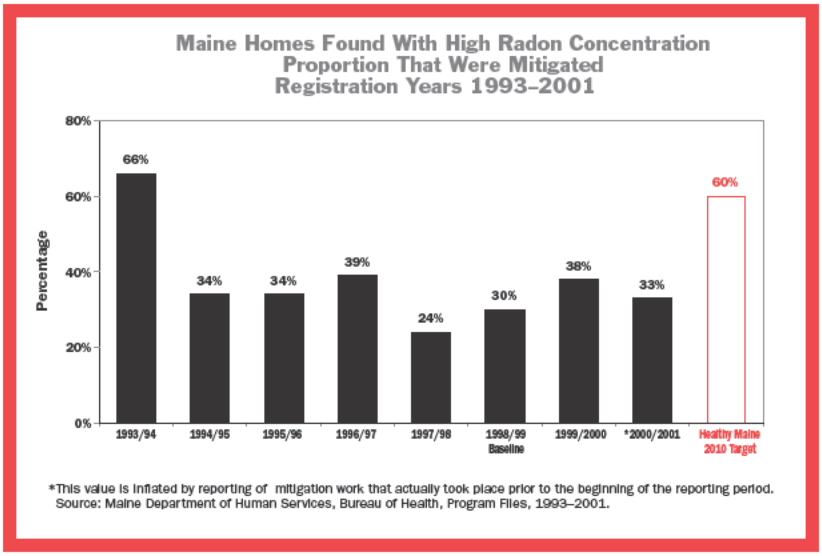
*This value is inflated by reporting of mitigation work that actually took place prior to the beginning of the reporting period.
Source: Maine Department of Human Services, Bureau of Health, Program Files, 1993–2001.

Note: Registration Year is from October to September. Due to reporting procedures, the actual number of homes tested and number of houses with elevated levels (meaning having radon concentrations equal to or greater than 4pCi/l) are approximations based on the number of test kit analysis reports received by the Bureau of Health as required under the Maine Radon Registration Act.

Although poor indoor air quality due to molds and poor ventilation poses major challenges in our office buildings, schools, and residences, there are few mechanisms for tracking many of these issues. We do have some ability to measure one critical indoor air contaminant – radon.

A naturally occurring radioactive gas, radon is found worldwide in varying concentrations in soil and water. Exposure over a long period of time is associated with an increased risk for lung cancer, particularly compounded if there is exposure to tobacco smoke. Radon causes an estimated 163 lung cancer cases each year in Maine.

Found commonly in indoor air and drinking water, Maine's radon concentrations are higher than much of the country. An estimated one in three Maine homes has air radon concentrations higher than the US Environmental Protection Agency's action level. In some areas, such as the Sebago Lake area, as many as two-thirds of homes tested have high levels. In addition, an estimated one-sixth of Maine wells have radon concentrations higher than the recommended amount.



*This value is inflated by reporting of mitigation work that actually took place prior to the beginning of the reporting period.
Source: Maine Department of Human Services, Bureau of Health, Program Files, 1993–2001.

8–18b Of Maine homes tested for radon, increase the proportion mitigated.

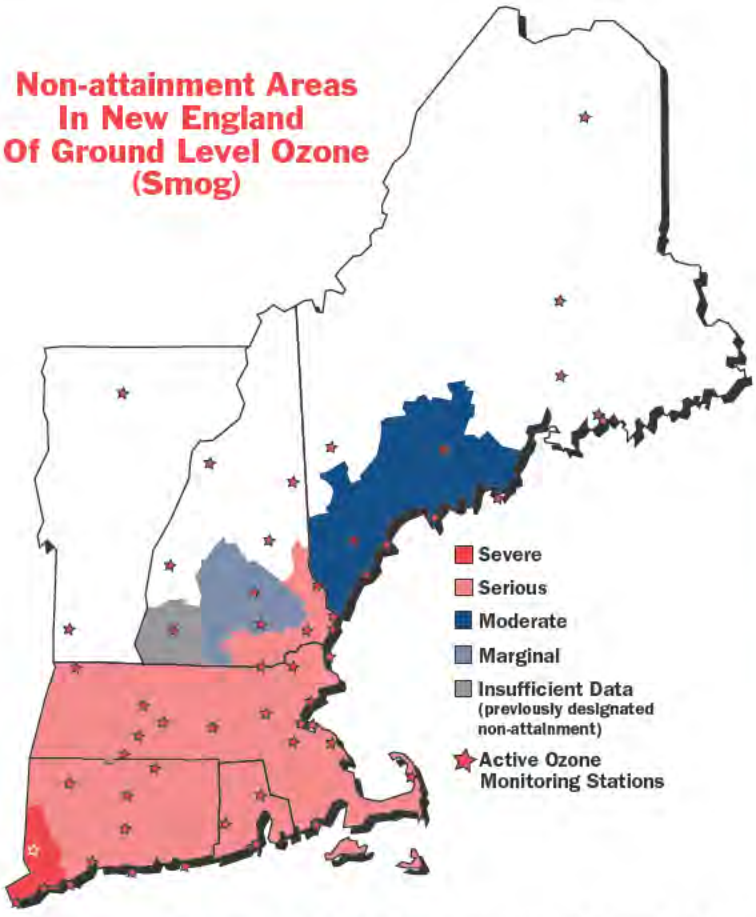
Healthy Maine 2010 Baseline: 30%
Healthy Maine 2010 Target: 60%

Currently the only reporting system for radon is the reporting required under the Maine Radon Registration Act, which went into effect in 1993. The resulting statute requires reporting of radon test results and radon mitigation work by zip code. The current reporting information does not indicate if a house is being tested after a mitigation system is installed, and does not indicate if a house is being tested multiple times. This means that only an approximation can be made when determining the number of homes tested and the number of homes with elevated radon concentrations. Through rule changes, the reporting requirements are planned to be modified in an effort to better determine the number of homes found each year that have elevated radon levels, and to better determine what percentage of homes with elevated radon levels are actually getting mitigated each year.

Radon Concentrations in Maine Public Schools: A radon-testing project conducted from 1988 to 1991 by the Bureau of General Services (then called Bureau of Public Improvements) found that 208 (32%) of the 653 publicly funded Maine school buildings had elevated radon concentrations (elevated means greater than or equal to 4pCi/l). Since then, approximately 20 have completed radon mitigation work. Another five were closed for various other indoor air or structural concerns.

Outdoor Air Quality

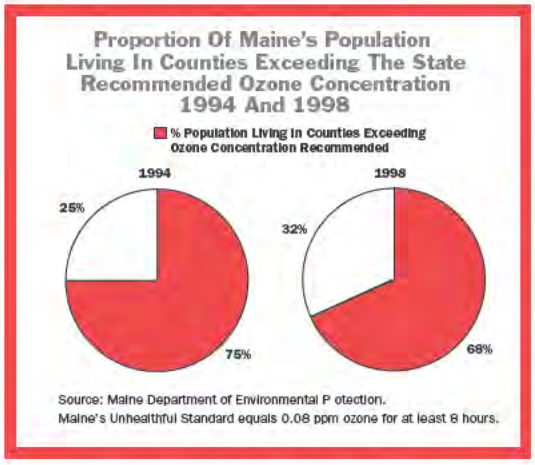
- **8–1 Reduce the proportion of persons exposed to air that does not meet the US Environmental Protection Agency's (EPA's) health-based standards for harmful air pollutants.**



EPA non-attainment standard is 0.125 parts per million ozone for at least one hour.
Source: US Environmental Protection Agency, 2002.

8–1a Eliminate the proportion of Maine people living in counties exceeding the state recommended ozone concentration.

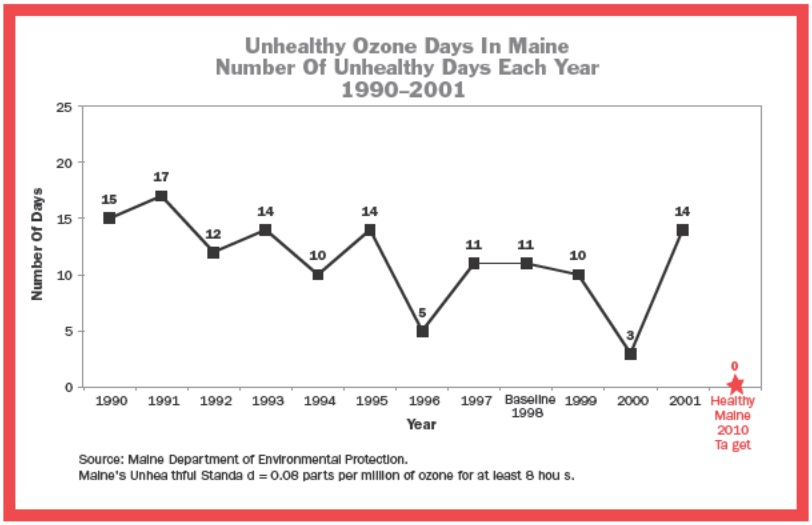
Healthy Maine 2010 Baseline: 68%
Healthy Maine 2010 Target: 0%



Source: Maine Department of Environmental P otection.
Maine's Unhealthful Standard equals 0.08 ppm ozone for at least 8 hours.

8–1b Eliminate the reported number of unhealthy ozone days (based on Maine's standard of 0.08 parts per million ozone for at least 8 hours).

Healthy Maine 2010 Baseline: 11 days
Healthy Maine 2010 Target: 0 days



Although there are numerous pollutants and issues pertaining to outdoor air quality, two that pose particular challenges in Maine are ozone and backyard trash burning.

Ozone is an odorless, colorless gas composed of three atoms of oxygen. Occurring naturally in the upper atmosphere, it forms a protective layer that shields us from the sun's ultraviolet rays. It also occurs near ground level when pollutants from cars, power plants, and refineries react chemically in sunlight, forming ozone. Ground-level ozone is found in Maine primarily during hot summer days and causes irritation to people's respiratory systems, especially to children and people with chronic lung disease such as asthma.

The number of unhealthy ozone days in a given year is due to a combination of factors, including the levels of pollution in Maine as well as weather factors such as heat waves. Cooler and wetter summers such as seen in 1996 and 2000 often result in lower number of unhealthy ozone days. Pollution causing Maine's ozone levels to be high comes both from within Maine, especially from vehicle use, as well as from pollution sources in other parts of the country, particularly states to the south and southwest of us, carried on the prevailing summer winds.

When trash is burned in someone's backyard, it is common for a number of harmful toxins to be released into the air. Unlike municipal incinerators, backyard burns are at much lower and inefficient temperatures, resulting in the formation of toxic products of incomplete combustion. Today's trash commonly contains polyvinylchlorides (PVCs) and other similar plastics that produce dangerous levels of hydrogen chloride when burned. Polystyrene (used in making foam cups and food containers), polyurethanes (used in wood finishes and adhesives), bleached paper products, slick colored papers, and pressure-treated wood are all commonly found in today's trash and can result in exposure to harmful toxins when burned. Backyard burning of trash that contains harmful substances such as these mentioned was banned by the 120th Maine Legislature in 2001.

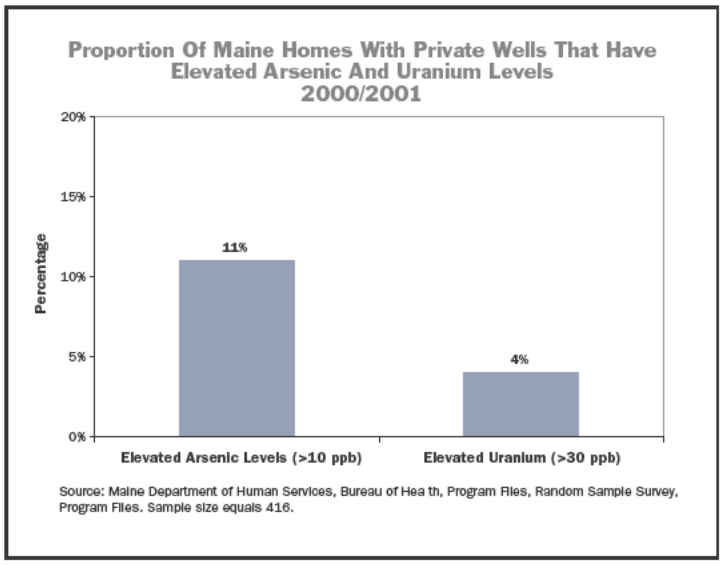
Drinking Water Quality

- **8–25 (Developmental) Increase the proportion of Maine homes with private wells that have been tested for arsenic and other naturally occurring substances of concern, such as uranium and radon.**

  Plans are being developed for measuring the baseline for this objective.

Arsenic Testing:
Healthy Maine 2010 Target: 75% of Maine Homes with private wells will be tested for Arsenic

Uranium Testing:
Healthy Maine 2010 Target: 75% of Maine Homes with private wells will be tested for Uranium



About half of Maine households (56%, 2001 BRFSS) rely on domestic wells as their source of drinking water. While public water supplies are regulated and must perform required testing and remediation of water quality, very little testing is required of our domestic wells. Often water testing only occurs at a required time, such as when a domestic well is drilled or during a home transaction involving a bank loan. Additionally, the scope of these required tests is very limited, mostly focused on tests for bacteria.

Naturally occurring substance such as arsenic, uranium, and radon are routinely found in domestic well water, sometimes at levels posing significant health risks if actions to mitigate exposure are not taken. All three of these chemicals pose cancer risks when exposure is long-term. With arsenic, the primary concern is with skin, bladder, and lung cancer. Recent studies indicate that arsenic in drinking water may also have adverse effects on pregnancy outcomes, such as miscarriages, stillbirths, and pre-term births. Arsenic is an element commonly found in soil and rocks in Maine. Additionally, pesticides containing arsenic were commonly used in farming (blueberry, apple, potato) until about 1960.

With radon, the primary concern is lung cancer through the contribution radon in water adds to indoor air radon levels. Though high levels of uranium may pose a radiological cancer risk, the primary concern with more typical levels is chemical toxicity to the kidneys.

Currently available statistics from a 2001 random sample of about 400 private wells indicate that about 11% of Maine's domestic wells have arsenic levels above the current health benchmarks (10 ppb), yet preliminary data indicate that only about 50% of Maine people with a private well have tested their drinking water for arsenic. (The 10 ppb health benchmark is used by the Bureau of Health, the World Health Organization, and the European Union; the US Environmental Protection Agency has also adopted a level of 10 ppb, to be effective in 2006 – their current standard is 50 ppb.)

This same study also shows that about 4% of Maine's domestic wells have uranium levels above the new Federal standard of 30 ppb. Data for radon in water, while not a random design, indicate that perhaps as many as 20% of domestic wells have radon levels capable of causing a significant increase in indoor air radon levels.

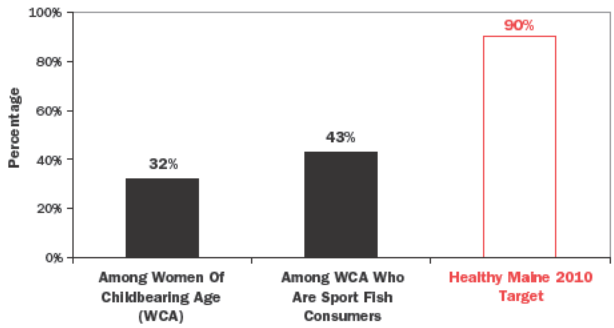
MERCURY FISH CONSUMPTION

- **8–25 Reduce mercury exposure among young children and fetuses.**

8–25a Increase the proportion of Maine women of childbearing age who are aware of the Bureau of Health's "Safe Eating Guidelines" for fish intended to reduce exposure to methylmercury.

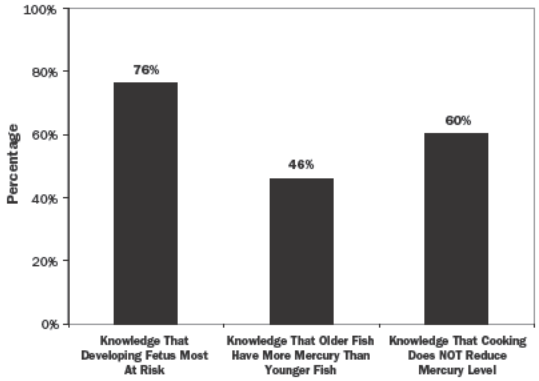
Healthy Maine 2010 Baseline: 32%
Healthy Maine 2010 Target: 90%

Maine Women Of Childbearing Age Who Are Aware Of The Bureau Of Health's "Safe Eating Guidelines" For Fish Intended To Reduce Exposure To Methylmercury 1998



Note: Current data on awareness of advisories was drawn f om samples of women of childbearing age. Future efforts will target the awareness of advisories for pregnant women, and subsequent evaluation will use samples drawn from the birth certificate regist y.
Sou ce: Maine Department of Human Services, Bureau of Health, RDD Survey of 500 Women of Childbearing Age, Maine & Wisconsin, 1998.

Proportion Of Maine Women Of Childbearing Age Aware Of The "Safe Eating Guidelines" For Fish With Knowledge Of Specific Risks 1998

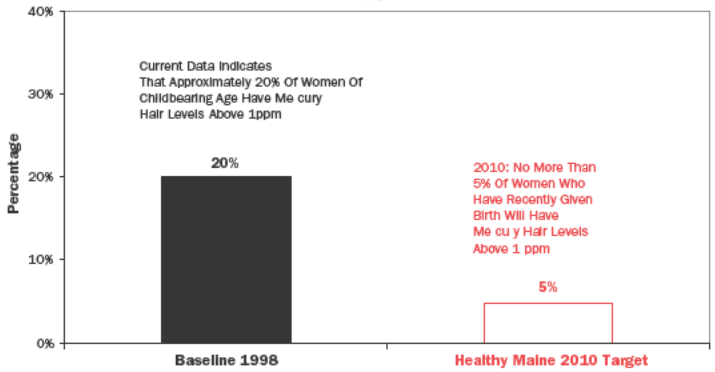


Note: Current data on awareness of advisories was drawn f om samples of women of childbearing age. Future efforts will target the awareness of advisories for pregnant women, and subsequent evaluation will use samples drawn f om the birth certificate registry.
Sou ce: Maine Department of Human Services, Bureau of Health, RDD Survey of 500 Women of Childbearing Age, Maine & Wisconsin, 1998.

8–25b Reduce the proportion of Maine women of childbearing age with mercury hair levels above one part per million.

Healthy Maine 2010 Baseline: 20%
Healthy Maine 2010 Target: 5%

Women Of Childbearing Age With Mercury Hair Levels Above 1ppm 1998



Note: Current data on mercury hair levels was drawn f om samples of women of childbearing age. Future efforts will target the me cury hair levels for pregnant women, and subsequent evaluation will use samples drawn f om the birth certificate registist y.
Sou ce: Maine Department of Human Services, Bureau of Health, Program Files, 1998.

Mercury is a naturally occurring heavy metal that is widespread and persistent in the environment. Its use in many commercial products and its emission from combustion processes have caused about a three- to four-fold increase in the global circulation pool of mercury. Upon entering aquatic systems, mercury is converted to an organic form (methylmercury) that is biomagnified through the food chain. Fish can have levels of methylmercury that can be as much as a million times greater than levels in the water.

Studies of people who eat large amounts of fish have found children of women with elevated mercury exposures are more likely to exhibit deficits in cognitive functions related to fine motor skills, attention, language, and memory (National Academy of Sciences Report, 2000). Both national (CDC, 2001) and Maine survey data indicate that more than 10% of women of childbearing age have body burdens of mercury above current estimates of tolerable daily intake, indicating little margin of safety for the developing fetus. Maine, like more than 40 other states, has issued statewide fish consumption advisories for locally caught fish due to mercury contamination. The US Food and Drug Administration has recently issued warnings on consumption of certain species of ocean fish known to be high in mercury, including canned tuna.

Fortunately, the 120th session of Maine's Legislature (2001-2002) passed laws that will help decrease mercury pollution, including a ban on the sale of mercury-containing thermostats for residential and commercial use, effective 2006, as well as the first in the nation law to collect and recycle mercury light switches from vehicles at the end of the vehicle's use. However, the continuing release of mercury from burning of coal and waste, combined with the persistence of mercury in the environment, means we will be coping with mercury pollution for years.

LEAD

- **8–11 Eliminate elevated blood lead levels in children.**

Lead, like mercury, is a heavy metal that exerts toxic effects on brain cells, causing learning disabilities and behavior disorders in children as well as nerve damage in adults. Although adults in Maine, especially housepainters and bridge workers, are at risk for lead poisoning, there currently is no mechanism in place to track the extent of the problem. However, we do have credible systems in place to track the extent of lead poisoning among Maine's children. These data systems show an extensive problem, persuading many public health and health professionals to believe that lead poisoning is Maine's number one environmental health hazard to children in terms of known risk, prevalence, and consequences. For instance, a compilation of six years of data (1994–1999) shows that one in nine Maine children who were screened were found to have elevated levels, yet only one in nine children under six years of age were tested with a simple blood test. Maine faces great challenges in reducing this public health problem – Maine needs to make its high-risk housing stock lead safe, to screen every child, and to assure proper treatment and follow-up for every child who has a high level.

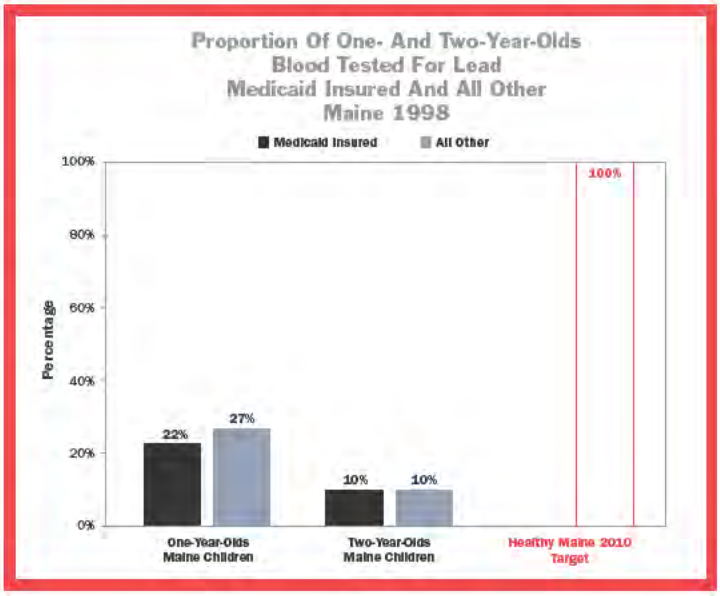
8–11a (Developmental) Increase testing for lead and abatement of lead in Maine homes, with a focus on those homes older than 1960.

Lead was commonly used in paint to make it last longer and give a shine. As of the 1950s, lead concentrations in residential paint were reduced substantially, and banned altogether for residential use in 1978. However, about half of all homes in Maine were built before 1960, and 40% built before 1950. Therefore, they are at high risk for exposing their inhabitants to lead, especially children who tend to be exposed through such normal behaviors as playing on the floor, putting their hands in their mouths, and touching painted window sills. Since many household paints contained as much as 50% lead by weight, only a very small exposure, even from the paint's dust, can result in lead poisoning of a child. Lead is also found in some antique furniture, some foreign-made painted products, and marine paints.

There is no mechanism for tracking the proportion of Maine homes tested and made lead-safe. However, until Maine homes are lead-safe, Maine children will continue to become lead-poisoned. Current initiatives are focusing on assuring that licensed day cares and foster homes are screened for lead hazards, that homes are screened or tested at the time of sale, and that parents with young children or expecting a baby have information on testing for lead and making their homes lead-safe.

8–11b Increase blood lead testing rates among one- and two-year-old children with Medicaid Insurance.

Healthy Maine 2010 Baseline: 1-year-olds 22%
Healthy Maine 2010 Baseline: 2-year-olds 10%
Healthy Maine 2010 Target: 1-year-olds 100%
Healthy Maine 2010 Target: 2-year-olds 100%



Despite Federal regulations that require all children who have Medicaid Insurance to have a blood lead test at age one and two years, blood lead testing rates for these children are lower than for all other children. For instance, in the year 2000, blood lead screening rates for one-year-olds with Medicaid Insurance were 22% compared to 27% for all other one-year-olds. An analysis of Maine data from the six years 1994–1999 showed that Maine children with Medicaid Insurance were twice as likely to be lead poisoned than other children (Bureau of Health, Maine Medical Assessment Foundation, 2000). In fact, of all the factors analyzed, having Medicaid Insurance was the most strongly associated with having elevated lead levels. Data from 1997–2000 also showed that 10.6% of one- and two-year-old Maine children with Medicaid Insurance tested had elevated blood lead levels (>10 ug/dl), compared to 5.7% of all other one- and two-year-olds.

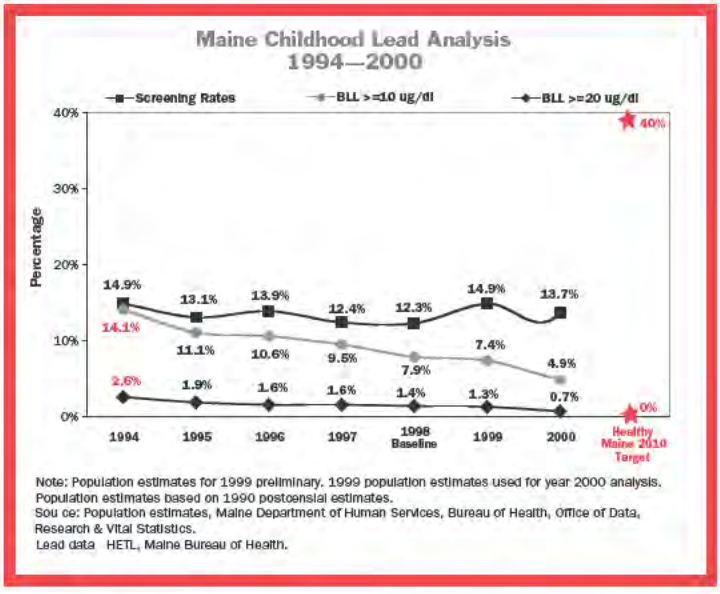
8–11c Increase blood lead testing rates among children under age six.

Healthy Maine 2010 Baseline: 12.3%
Healthy Maine 2010 Target: 40%

8–11d Reduce the proportion of children with elevated blood lead levels (>10 ug/dl).

Healthy Maine 2010 Baseline: 7.9%
Healthy Maine 2010 Target: 0%

Blood lead levels >10 ug/dl reported from 1994–2000 have shown a linear decline of 15% on average per year. If Maine's homes become lead-safe and Maine's children are properly screened, it is hopeful that elevated levels among our children will be eliminated.



Note: Population estimates for 1999 preliminary. 1999 population estimates used for year 2000 analysis. Population estimates based on 1990 postcensial estimates.
Sou ce: Population estimates, Maine Department of Human Services, Bureau of Health, Office of Data, Research & Vital Statistics.
Lead data HETL, Maine Bureau of Health.

8–11e Reduce the proportion of children who are lead-poisoned (lead levels >20 ug/dl).

Healthy Maine 2010 Target: 1.4%
Healthy Maine 2010 Target: 0%

Blood levels >20 ug/dl reported from 1994–2000 have also shown a linear decline of 15% on average per year. Since these children appear to be at highest risk for developmental and behavioral disorders associated with lead, the CDC-funded Maine Childhood Lead Poisoning Prevention Program in the Bureau of Health is focused on outreach to children with elevated blood lead levels, especially with those with levels over 20 ug/dl.

It is recommended that all Maine children under age six be screened through a minimum of a questionnaire (verbal or written) for exposure to lead paint. Blood tests should be conducted in at least all children who screen positively or in children living in high-risk situations (such as low socioeconomic status indicated by Medicaid Insured status or in communities with high-risk housing). Using 1997 Centers for Disease Control and Prevention guidelines, every hospital service area in Maine has enough high-risk housing stock (>26% of housing built before 1950) to warrant universal blood testing for all one- and two-year-olds.

There is no current mechanism for measuring what proportion of children receives a verbal risk assessment. All blood tests for lead in Maine are required to be performed at the Health and Environmental Testing Laboratory (HETL in Maine DHS Bureau of Health), providing us with good public health data on blood testing. When looking at recent trends for blood testing rates, the fact that children ages one and two are at highest need for blood testing, and the fact that 40% of Maine's housing population was built before 1950, making it at very high risk, a target of 40% blood testing screening rate for children under age six appears appropriate. This target may be adjusted as new information and mechanisms for tracking become available.

Maine's Legislature enacted a bill in 2002 requiring all Maine children to have a blood lead test at 12 and 24 months of age, unless the medical provider can demonstrate via a risk assessment questionnaire that the child is not at risk for lead exposure. A recently convened Physician Task Force on Lead Screening is formulating the Maine standard for risk assessment.

PESTICIDE USE

- **8–13 and 8–24 (Developmental) Minimize Reliance on Pesticides and Reduce Pesticide Exposure.**

Pesticides are agents that kill, control, or repel undesirable and sometimes harmful organisms. They include herbicides, rodenticides, insecticides, disinfectants, fungicides, insect repellents, and antimicrobial pesticides. More than 7,000 pesticides are registered with the Maine Board of Pesticide Control (BPC), and many contain chemicals that are harmful to people.

The BPC, in the Maine Department of Agriculture, monitors pesticides in the environment, particularly in water. For instance, a Statewide groundwater survey looking for pesticides in drinking water wells located within a quarter mile downslope from known pesticide sites was conducted in 1995, 1999, and is planned to be repeated in 2004.

Public water supplies are routinely tested for pesticide contamination. The BPC also has been monitoring surface water for pesticides in the five salmon rivers. Results from the various water monitoring show one sample that has exceeded the health standard for a pesticide – a private drinking water well contaminated by the homeowner's use of Diazinon™ to kill ants.

Since hundreds of pesticides are available to purchase over the counter and since over 90% of our exposure to them occurs in our homes, it is critical to build awareness of pesticides' harmful effects and of alternatives in order to minimize our exposure to them. One recent study in Maine estimated that about one in four schools use pesticides routinely and those pesticides are often applied by untrained and unlicensed personnel ("What's Bugging Our Schools? Pest Concerns and Pesticide Use in Maine Public Schools – Report of the School Integrated Pest Management Survey," found at http://www.state.me.us/agriculture/pesticides/schoolipm/schoolipm_report.pdf). As a result of this report, the BPC gave a grant to the Maine Department of Agriculture to start a school-integrated pest management awareness and education program. Additionally, rules are being promulgated to regulate the use of pesticides in Maine schools.

In 1997 a legislative mandate called for a State policy to minimize reliance on pesticides by promoting principles of Integrated Pest Management (IPM) and other science-based strategies that utilize pesticides as a last resort. The BPC was directed to measure Statewide pesticide purchasing to determine where trends exist. Subsequently, the BPC and several legislative committees cited at-home, do-it-yourself lawn care as the largest sector of pesticide use that is the least regulated. Home lawn and garden pesticide use in Maine has grown from 800,000 pounds in 1994 to 1,600,000 pounds in 1999 to 1,800,000 pounds in 2000 (reports of sales from licensed general use pesticide dealers).

This more than doubling of lawn care pesticide use has led to an education, water quality monitoring, and certification program to encourage homeowners to apply IPM principles. The program, called "BayScaping," has evolved into a dynamic partnership among a number of state and community agencies as well as retailers (including some lawn care businesses). Although its original scope was the Casco Bay watershed, it is hoped it will evolve statewide so that every homeowner chooses pesticides thoughtfully and only as a last resort. (www.thinkfirstspraylast.org/bayscaper)

EXAMPLES OF SOME COMMON PESTICIDES:

- **Sevin™ and Diazinon™ are Insecticides.**
- **D-Con™ is a Rodenticide.**
- **Roundup™ is an Herbicide.**
- **Captan is a Fungicide.**
- **Scott's Turf Builder™ and many other "weed and feed" products contain Herbicides.**
- **Ortho Rose™ and Flower Dust™ is a combination Fungicide and Insecticide.**
- **Lysol™ and Clorox™ bleach are Disinfectants, killing bacteria.**
- **Mildewicides are commonly found in paints.**
- **Bacillus Thuringiensis (Bt) or milky spore is a Biological Pesticide.**

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Family Planning and Perinatal Health

GOAL

Improve pregnancy planning and spacing, prevent unintended pregnancy, and improve the health of women and infants.

Overview

Although couples today can have considerable control over their fertility, half of all pregnancies nationally are unintended. When pregnancies are planned and desired, the health of mothers, infants, and the entire family improves.

Measurements that gauge the health status of pregnant women and infants are a key barometer not only of the health of a family but also of the entire society since so many community factors and support systems contribute toward the health of these two vulnerable populations.

Overall, Maine is doing well in the areas of reproductive and perinatal health compared to other states. However, there is much room for improvement. Worldwide, for instance, the United States ranks 25th for infant mortality and ranks poorly for teenage birth rates among developed countries.

Successful strategies and systems implemented in Maine and other geographic areas are important to recognize and understand if we are to maintain and improve upon our successes in family planning and perinatal health. Particularly as our population in Maine becomes more diverse, assuring that our strategies are culturally competent and linguistically appropriate is also important if we are to improve the health of all Maine families.

The Centers for Disease Control and Prevention characterizes family planning as one of the "Ten Great Public Health Achievements" of the twentieth century.

Strategies

PRIMARY
SECONDARY
TERTIARY

- **Community-Based Initiatives:** Examples of community-based efforts include Healthy Communities, Child Abuse and Neglect Councils, community-based domestic violence prevention initiatives, Communities for Children, and Healthy Maine Partnerships that all work to create community environments that are healthier for families.
- **Comprehensive Family Life Education:** Over the past two decades, Maine schools have increasingly provided comprehensive school health education, with one component being sexual health, including abstinence.
- **Universal Vaccinations:** For the past five years, all necessary childhood vaccines have been provided free by the Bureau of Health to licensed health care providers for all children.
- **Folic Acid:** Ensuring that all women of reproductive age take adequate folic acid is critical to preventing spina bifida and other neural tube defects.
- **Public Health Nursing:** Specific attention to reproductive and perinatal health issues began in Maine in 1920 with the development of Public Health Nursing, which was established to address Maine's high infant mortality rate (which was then 102 per 1,000 live births) through working with high risk families. They also employ primary prevention strategies such as providing community education on hygiene, nutrition, and perinatal care.
- **Universal Home Visits:** Although traditionally home visits to families in the perinatal period have been offered to high-risk families (secondary prevention), Maine's system of home visits is being expanded to include almost all newborns to first-time parents (primary prevention).
- **Nutrition:** Supplemental nutrition and education through such programs as Food Stamps, WIC (Women, Infants and Children), Healthy Maine Partnerships Campaign, and University of Maine Cooperative Extension assure proper nutrition to pregnant women and young children, with a focus on those at high risk for poor nutrition.
- **Screening Programs:** Preconception and prenatal genetic testing and counseling services, universal newborn screening for metabolic disorders, and newborn hearing tests are common screening programs that help identify risks and problems early so timely interventions can improve chances for healthy outcomes.
- **Preventive Care:** Availability of preventive reproductive health care through private and public providers, such as Maine's 30 family planning clinics as well as rural, migrant and Indian health centers, assure women and infants have access to effective preventive care – including preconception, prenatal, and postnatal care, tobacco cessation and substance abuse treatment programs. Additionally, EPSDT (Early Periodic Screening Development Treatment Program) assure those children with MaineCare insurance (previously Medicaid or Cub Care) have access to preventive care.
- **Access:** MaineCare (Medicaid and Cub Care) covers all pregnant women and infants under 200% of the Federal Poverty Level ($3,017 monthly income for a family of four in 2002), which is about 40% of pregnant women and infants in Maine.
- **Specialty Care:** Transportation services to and availability of specialty care for high-risk pregnancies and sick infants are important for the health of all Maine pregnant women and infants. Maine's tertiary care hospitals provide these critical services throughout Maine, and programs such as Katie Beckett and Children with Special Health Needs Program assure coverage for specialty care for some disabled or sick children.

Health Disparities

(Populations at risk for experiencing barriers to family planning and perinatal health, based on national data in *Healthy People 2010*)

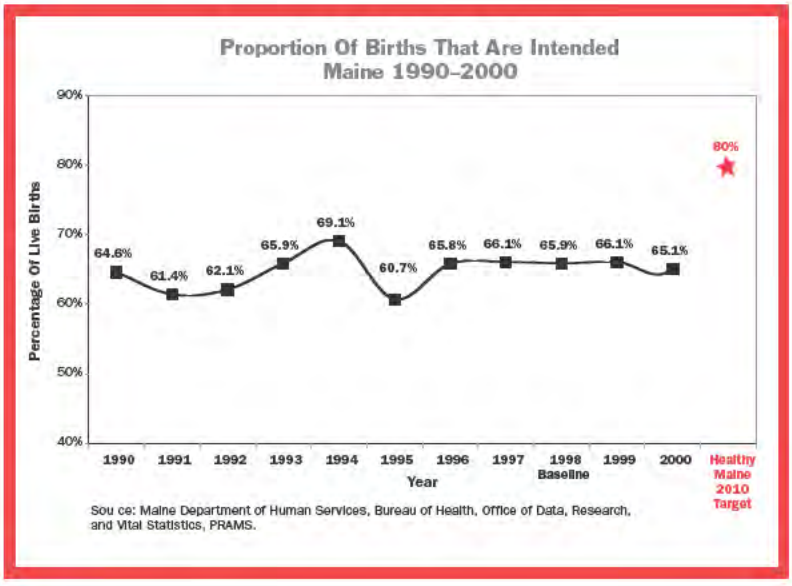
- **Young mothers under age 16** (higher rates of unintended pregnancy, lower rates of early and adequate prenatal care, higher rates of infant mortality)
- **Older mothers over age 44** (higher rates of infant mortality)
- **African Americans** (higher rates of unintended pregnancy, lower rates of early and adequate prenatal care, higher rates of young maternal age and high birth order, higher infant and maternal mortality rates, higher rates of low birth weight, lower rates of breastfeeding, higher rates of death from sudden infant death syndrome)
- **Hispanics** (less likely to receive early prenatal care)
- **Native Americans** (less likely to receive adequate prenatal care, higher rates of fetal alcohol syndrome)
- **Low Socioeconomic Status** (higher rates of unintended pregnancy)

Objectives

Objective numbers are *Healthy People 2010* objective numbers.

- **9–1 Increase the proportion of births that are intended.**

Healthy Maine 2010 Baseline: 65.9%
Healthy Maine 2010 Target: 80%

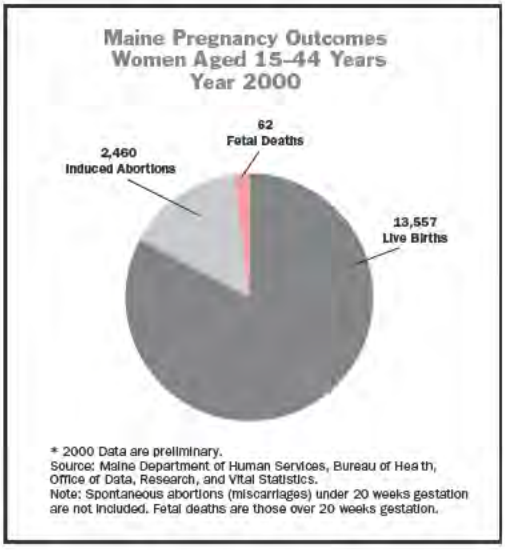


It is difficult to ascertain the proportion of all *pregnancies* that are intended since pregnancies include those that result in live births, induced abortions, fetal deaths, and miscarriages (spontaneous abortions), and there is no ongoing survey that asks all pregnant women whether their pregnancy was intended or not. A national attempt to measure this using a number of different data sources resulted in an estimate that 51% of all pregnancies were intended in 1995. The Healthy People 2010 9–1 objective is to increase the proportion of *pregnancies* that are intended.

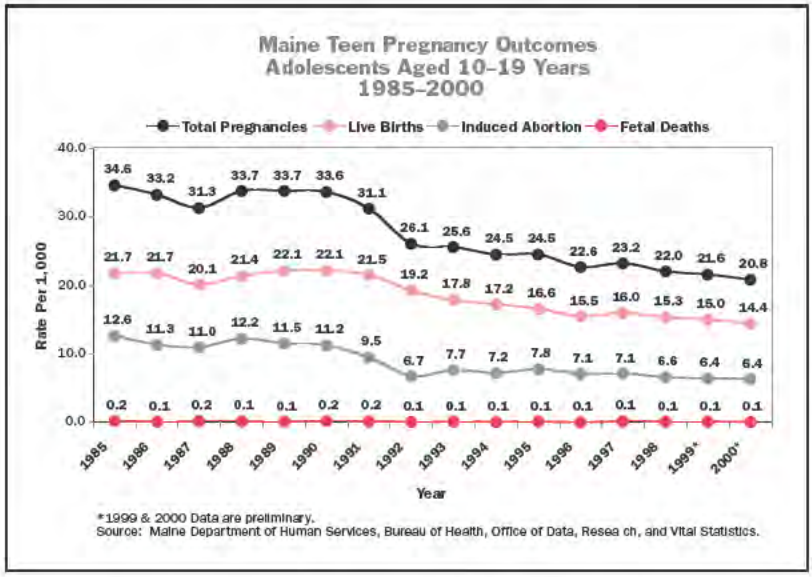
Maine's PRAMS survey asks a number of questions to a sample of women several months after giving birth, including whether or not they had intended to become pregnant. Therefore, the results of this question are used as the way to measure this Healthy Maine 2010 objective. However, it is limited by the fact that pregnancies, both unintended and intended, result in outcomes other than a live birth. Yet the only women interviewed by PRAMS are those who experienced a live birth. Therefore, the Healthy Maine

2010 9–1 objective is to increase the proportion of *births* that are intended.

There is room for much improvement in this objective since other developed countries often enjoy higher rates of intended pregnancies. For instance, the Netherlands has an estimated rate of intended pregnancies of 94%. In the US, adolescents are at highest risk for unintended pregnancy. An estimated half of all women ages 15–44 have had an unintended pregnancy at one time.



Increasing the proportion of intended pregnancies gives us great opportunity to improve the health not only of mothers and babies, but also of entire families. For instance, improvements in this objective can result in improvements in infant health, in educational attainment and employment opportunities for both parents, as well as reductions in welfare dependency, child abuse, and neglect.



Two strategies are critical to achieving this Healthy Maine 2010 objective:

1) *increasing access to comprehensive family life education in our schools and communities; and*
2) *increasing access to preventive reproductive health care.*

The Family Planning Association of Maine receives Federal Title X funds as well as other State, Federal and private funds to work with communities and partners across the State to help implement these strategies. A recent success in implementing these strategies was achieved in 2002 when the Maine Legislature passed An Act to Expand Family Life Education Services in Maine Schools, that for the first time defines and supports comprehensive family life education in Maine statute (see insert).

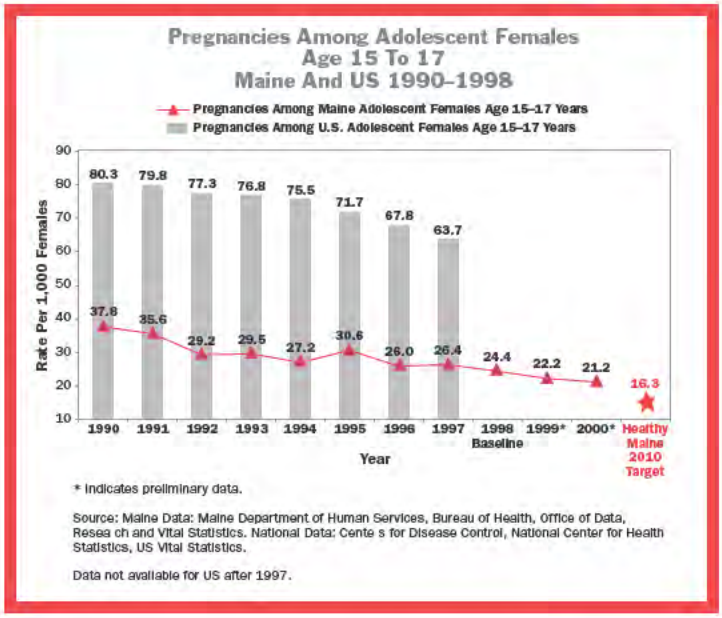
Induced abortions and teenage pregnancies correlate with unintended pregnancies, though a small percentage of teenage pregnancies and those pregnancies that end in induced abortions are intended. In order to add pertinent information to this objective about unintended pregnancies other than those that result in live births, charts are included on these subjects.

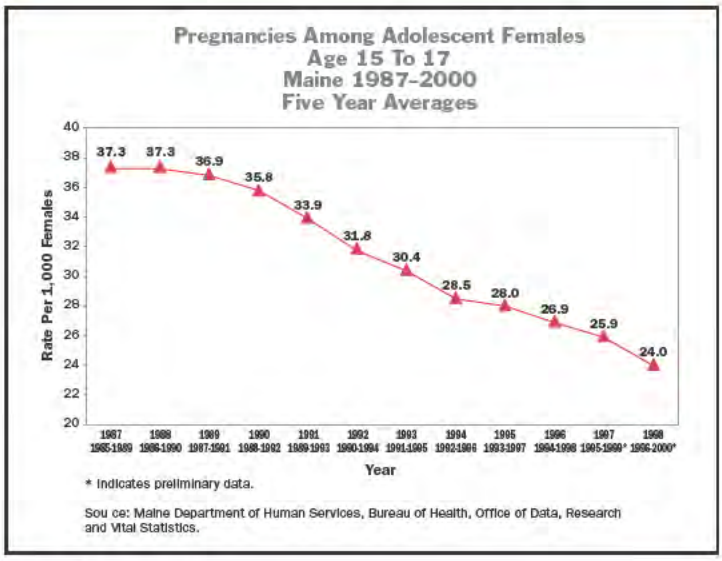
Miscarriage data is not included in these charts since nationally and Statewide there are no reliable ongoing data sources on the proportions of pregnancies that end in miscarriage (spontaneous abortion). With the advent of early home-pregnancy testing, it is increasingly recognized that a significant proportion of pregnancies end this way.

- **9–7 Reduce pregnancies among adolescent females (15–17 years).**

  Healthy Maine 2010 Baseline: 24.4
  Healthy Maine 2010 Target: 16.3

Although Maine is proud to have one of the lowest adolescent pregnancy rates in the country over the past eight years, there are many developed countries that have lower rates. For instance, Maine's rate is almost four times that found in the Netherlands and Japan. Additionally, Maine's rates are not as impressive when compared to the US rates for non-Hispanic whites. However, Maine has seen the sharpest decline in the country among its teenage pregnancy rates ages 15–19 during the 1990s.





The consequences of adolescent pregnancy are staggering to the entire family – teenaged mothers are less likely to get or stay married, less likely to complete high school or college, more likely to require public assistance, and to live in poverty. Infants born to teenaged mothers are more likely to suffer from low birth weight, neonatal death, sudden infant death syndrome, child abuse or neglect, and behavioral and educational problems at later stages.

The two strategies mentioned previously of improving access to comprehensive family life education in our schools and communities as well as improving access to preventive reproductive health care are critical to improving this objective.

MAINE STATUTE DEFINITION OF COMPREHENSIVE FAMILY LIFE EDUCATION

Enacted 2002

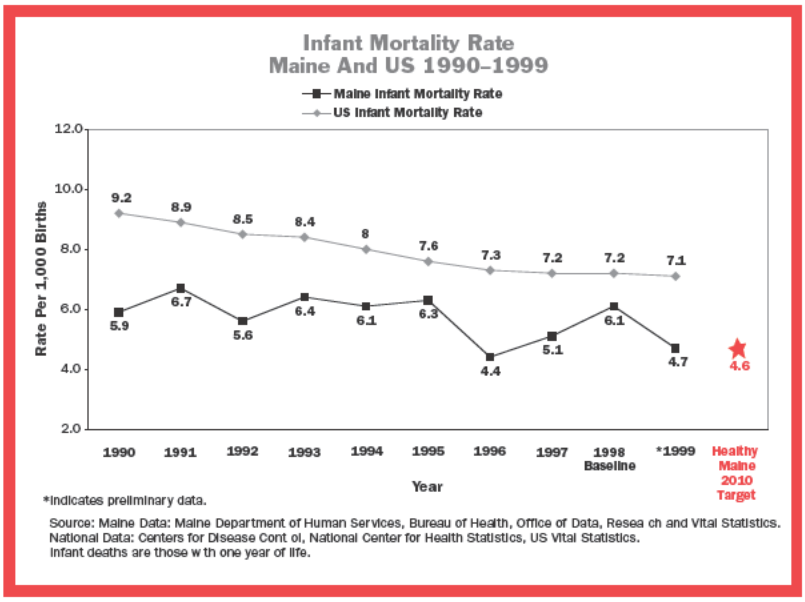
"Comprehensive family life education" means education in kindergarten to grade 12 regarding human development and sexuality, including education on family planning and sexually transmitted diseases, that is medically accurate and age appropriate; that respects community values and encourages parental communication; that develops skills in communication, decision making and conflict resolution; that contributes to healthy relationships; that promotes responsible sexual behavior with an emphasis on abstinence; that addresses the use of contraception; that promotes individual responsibility and involvement regarding sexuality; and that teaches skills for responsible decision making regarding sexuality. (Sec. 1. 22 MRSA §1902, sub - §1-A)

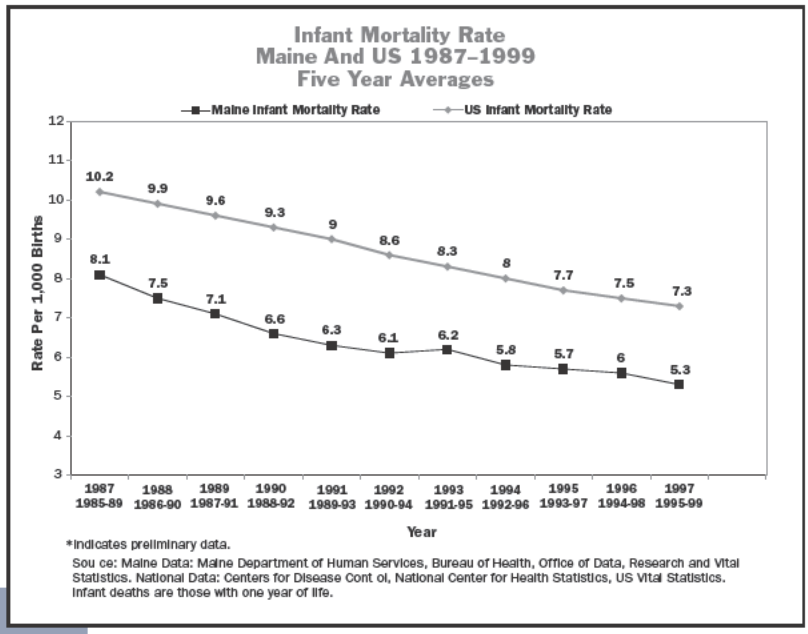
- **16–1 Reduce infant deaths.**

Healthy Maine 2010 Baseline: 6.1
Healthy Maine 2010 Target: 4.6

Infant death is a critical indicator of the health of a society since it reflects the overall state of maternal and infant health and the many social, environmental, and health care system factors that contribute toward the health of both these vulnerable populations. One hundred years ago in Maine, about one in eight babies born did not live to see their first birthday. Today, for babies born full term, that number has dropped to one in 1,000. During the last decade, Maine has consistently had the lowest or one of the lowest infant mortality rates in the nation.

Infant mortality is made up of two major components: neonatal mortality (death in the first 28 days of life) and postneonatal mortality (death from one month of age until the first birthday). The leading causes of neonatal death are birth defects, disorders due to prematurity and low birth weight, and pregnancy complications. The leading causes of postneonatal mortality include sudden infant death syndrome (SIDS), birth defects, and injuries.





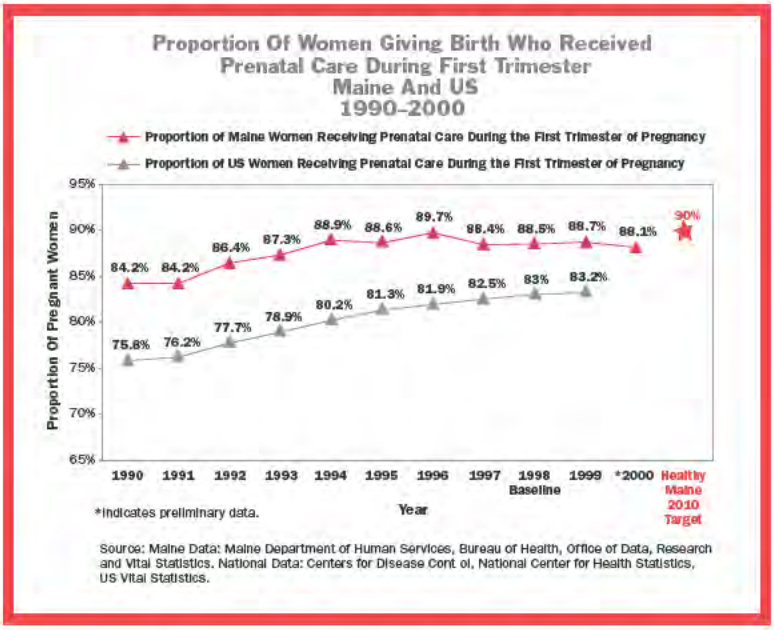
What is Title X?

Passed by Congress in 1970, Title X of the Public Health Service Act provides funding and regulations pertaining to family planning. As a result, a broad range of effective and medically approved family planning services are provided for across the country.

Preventable pregnancy complications resulting in fetal or neonatal death include those associated with alcohol use (nationally, fetal mortality is 77% greater in women who regularly use alcohol), tobacco (nationally, fetal mortality is 35% greater in women who regularly use tobacco), and illegal substances. Tobacco addiction is also associated with unhealthy low birth weight, prematurity, sudden infant death syndrome, and respiratory problems in newborns as well as an estimated 15% of costs for all complicated births.

- **16-6 Increase the proportion of pregnant women who receive early and adequate prenatal care.**

Healthy Maine 2010 Baseline: 88.5%
Healthy Maine 2010 Target: 90%

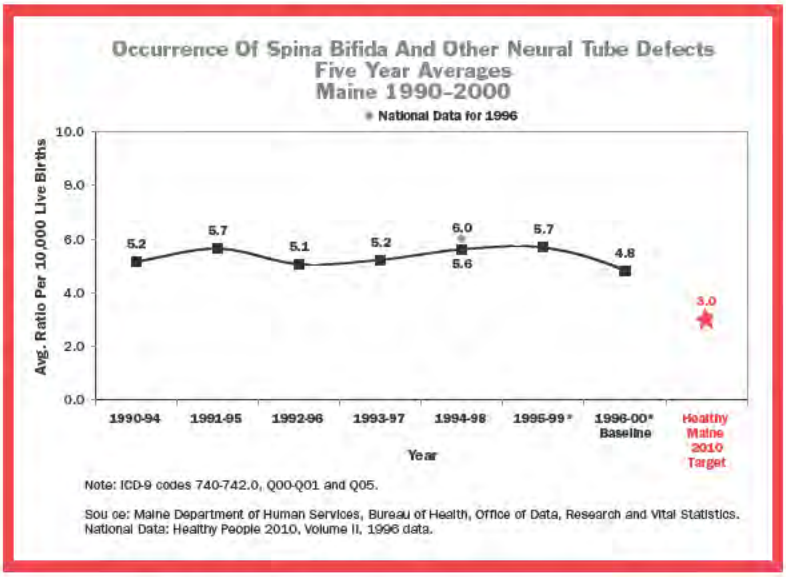


Much of prenatal care consists of screening for risks, treating any medical condition or risk that arises, and providing education. Therefore, early and ongoing adequate prenatal care is essential to a healthy pregnancy and baby.

This objective is measured from data obtained from birth certificates and therefore only detects prenatal care among those women who give birth. Although Maine has seen steady increases in this objective over the past decade to almost achieving the Healthy Maine 2000 and 2010 objectives of 90%, the challenge is now to determine who are those most likely to not receive early and adequate prenatal care, and focus our efforts on them. Nationally, mothers who are adolescents, African Americans, Native Americans, and Hispanics are most likely to not receive early and adequate prenatal care. Recent Medicaid expansions in Maine to include pregnant women to 200% of Federal poverty level should also help achieve this objective.

- **16-15 Reduce the occurrence of spina bifida and other neural tube defects.**

Healthy Maine 2010 Baseline: 4.8
Healthy Maine 2010 Target: 3.0



Neural tube defects, including spina bifida, occur when the fetal neural tube fails to close fully, interrupting development of the central nervous system.

About half of all neural tube defects can be prevented when women take adequate folic acid from one month before conception through the first three months of pregnancy. Rates of neural tube defects and death from this relatively common birth defect can be substantially reduced if all women capable of becoming pregnant consume 400 micrograms of folic acid daily. Since about one-third of Maine births are unplanned, it would be beneficial if all women of reproductive age (15–44 years) took daily folic acid.

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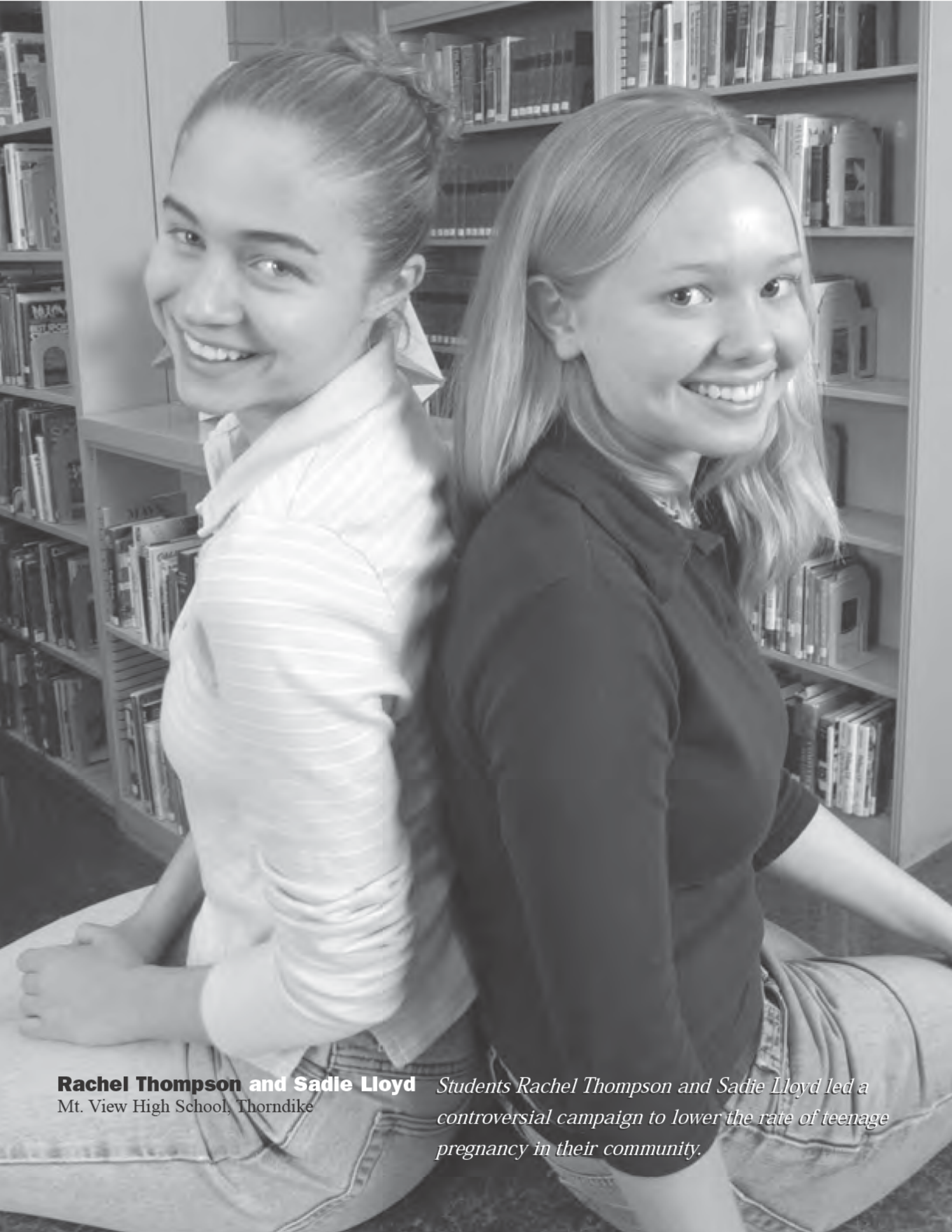
Over the past two decades, Maine has employed the two major Statewide strategies of increasing access to comprehensive family life education in our schools and communities as well as increasing access to preventive reproductive health care. As a result, teaching comprehensive family life education has increasingly become a community and school standard in Maine, and there are now 30 family planning clinics throughout the State. Maine has seen marked success using these strategies:

Decline in Teen Pregnancy Rates: In 1979, Maine's teen pregnancy rate was 67.9 per 1,000 females aged 15–19. The rate has decreased more than 35% to 41.3 per 1,000 in 2000, the sharpest decline in the country.

Decline in Teen Abortion Rates: Abortions among teens (ages 15–19) have dropped by 39% from 1988 to 2000.

Increase in Teen Abstinence: In 1991, 42% of high school students reported never having sexual intercourse, and in 2001 this increased to 53.7% (Maine Youth Risk Behavior Survey).



Rachel Thompson and Sadie Lloyd
Mt. View High School, Thorndike

Students Rachel Thompson and Sadie Lloyd led a controversial campaign to lower the rate of teenage pregnancy in their community.

While Maine's teen pregnancy rate has been cut roughly in half over the past 20 years, the numbers have stayed disturbingly high in certain places. One such place is Thorndike in Waldo County (SAD 3) where one out of five senior girls became pregnant in 2000. Rachel Thompson and Sadie Lloyd, both juniors at Mount View High School, used this and other alarming statistics as the backbone in their campaign to make condoms available at school.

As part of a school leadership group called The Natural Helpers, Rachel and Sadie took the lead in promoting "The Condom Project." They started the Project by gathering data with the help of their supervisor, school nurse Heidie Piersiak. They found that Liberty, one of the 11 towns of SAD 3, showed the highest rate of teenage pregnancy in the state and that Waldo County's numbers were the third highest of all Maine counties. A 1998 State survey showed that 4.35% of girls aged 15 through 19 became pregnant and an internal survey found that 60% of Mt. View High School students were sexually active and, among those, 70% used no birth control. Despite these statistics, fewer than a dozen of Maine's 117 secondary schools distributed condoms at that time.

In addition to searching for data, the students went right to the source. "We surveyed members of the student body and staff to find out if they thought having condoms available was a good idea," says Sadie. "More than half of teachers responding supported the project and at least 80% of students did."

After clearing it with the principal, the students made a multimedia presentation to the school board. They stressed that the incidence of AIDS and other sexually transmitted diseases, as well as teenage pregnancies, could be reduced significantly through condom use. They cited health officials and educators who attribute the decline in Maine's teenage pregnancy rate to better education and the availability of contraception. The school board was attentive to the students' message, but felt it was important to open the discussion to the community at large.

"There was a lot of tension leading up to the next meeting," reports Rachel. "Many people were concerned that access to condoms would promote sexual activity and some felt that teen sex was a family issue that shouldn't be addressed at school, while others spoke in favor of giving students the means to exercise sexual responsibility. Fortunately, almost all the students there spoke up in defense of condoms at school and that impressed the board."

"It was a lot of work, but we couldn't turn our backs on such an important cause," says Sadie.

After weighing the issues, the school board voted 8–2 to allow distribution of condoms. However, they decided to have the Maine Family Planning Association oversee the project instead of the school nurse, as originally proposed.

The hope is that students will feel safer discussing intensely personal issues with someone not involved in other parts of their lives. At the same time, it frees the nursing staff to devote full time and energy to their regular duties. "Students make an appointment to see the Family Planning representative during one of her weekly school visits," explains Sadie. "In addition to providing free condoms, she offers counseling on STDs, pregnancy, depression or any other topic of interest to teens. Education is always a component." The representative is also available to talk with parents and other members of the community.

While the Project is just months old, it seems earmarked for success. "The first day the family planning representative came, she saw more than 20 kids and gave out over 100 condoms," says Rachel. Sadie and Rachel are being credited with making a big difference in the community and there's every reason to believe the project will go on long after they've graduated.

"It was a lot of work, but we couldn't turn our backs on such an important cause," says Sadie. "Interestingly enough, the project took nine months from beginning to end."

Infectious Disease and Immunization

GOAL

Prevent disease, disability, and death from infectious diseases, including vaccine-preventable diseases.

Overview

Overcoming the scourge of many infectious diseases through clean drinking water, good hygiene, vaccines, and antibiotics is one of the greatest public health successes of the twentieth century. However, without proper vigilance to maintain education and the systems that were responsible for these successes, we are vulnerable to a myriad of infections.

In addition, with inappropriate use of antibiotics in humans and animals and resulting antibiotic resistance, increasing global travels, importation of food, conglomeration of food production, and increasing threats from bioterrorism, we remain susceptible to a variety of emerging diseases. In fact, over the past two decades, deaths in the United States from infectious diseases are rising – nearly 60% from 1982 to 1992 alone, and still 22% when HIV-associated deaths are removed. Many of these are emerging diseases.

Maine is fortunate to have relatively low rates of a number of infectious diseases that plague other areas of the country or world such as tuberculosis and malaria. However, our vulnerability to emerging diseases is increasing: violations in food safety are more frequently causing foodborne illnesses, our infectious disease surveillance and response systems need strengthening, and our health systems are increasingly challenged to address infectious disease issues in Maine's increasing numbers of foreign-born residents.

With the increased threat of bioterrorism since the September 11, 2001 attacks on the United States and subsequent anthrax attacks, there is heightened awareness about vulnerabilities in our early detection, communication, and incident management systems that respond to infectious diseases. Fortunately, Congress has allocated funds to each state's health departments, including Maine's Bureau of Health in the Department of Human Services, to strengthen these systems.

PRIMARY
SECONDARY
TERTIARY

Strategies

- **Clean Drinking Water:** Ensuring clean drinking water is one of the most basic and critical strategies to reducing infectious disease transmission. Maine's public drinking water supplies are regulated and monitored, however, almost half of Maine people obtain their drinking water from private well water, and often do not routinely test their water.
- **Safe Food:** Inspections and regulations of retail and commercial food such as that found in grocery stores, warehouses, and restaurants are critical to assuring a food supply that is safe from microbial or chemical contaminants.

- **Vaccinations:** Ensuring that people and health care providers are educated about vaccines, have easy access to them, and have information systems (such as immunization registries) providing knowledge about who needs which vaccines, are all important strategies to improving vaccination rates among Maine children and adults are adequately vaccinated.

- **Infectious Disease Public Health Infrastructure:** An effective public health infrastructure assures that early detection, communication, and incident management for infectious diseases, including for bioterrorism, are helping to protect all Maine people against these threats.
- **Education:** Efforts that educate the public, and especially those in high-risk situations such as food workers, health care workers, and people who are sexually active with multiple partners, to reduce the risk of transmission are proven critical strategies to reduce infectious disease spread.
- **Medical Care:** Access to medical care, including infectious disease specialists, is important to protect all Maine people from the potential devastation of infectious diseases.

Health Disparities

(Populations at risk for infectious diseases, based on national data in *Healthy People 2010*)

- **Elders and infants/small children** (higher risk for ill effects from foodborne diseases)
- **Adolescents** (higher rates of STDs, and more susceptible to their complications)
- **Elders** (higher risk for complications from tuberculosis, influenza, or pneumococcal disease)
- **Young men who have sex with men** (higher rates of HIV than older men who have sex with men)
- **Men who have sex with men** (higher rates of HIV and other STDs)
- **Women** (more susceptible to STDs and their complications)
- **Foreign-born people** (higher rates of tuberculosis)
- **Immunocompromised people** such as people with HIV and undergoing some cancer treatments – (higher risk for ill effects from foodborne diseases, influenza, and pneumococcal diseases)
- **Sex workers** (higher rates of STDs including HIV)
- **Substance abusers** (higher rates of STDs including HIV)
- **African Americans and Hispanics** (higher rates of STDs including HIV)
- **People with low socioeconomic status** (lower vaccine rates and higher tuberculosis rates)

Objectives

Objective numbers are *Healthy People 2010* objective numbers.

- **23–14 Increase the number of geographic areas in Maine that have comprehensive epidemiology services to support essential public health services.**

Healthy Maine 2010 Baseline: 0
Healthy Maine 2010 Target: Regional geographic areas covering the entire state

Currently, comprehensive epidemiology services are located centrally in the Bureau of Health and cover the entire State. This objective was added after our experiences in the wake of the September 11, 2001 attacks on the US and subsequent anthrax bioterrorism incidents. These experiences highlighted the precariousness of not having regional or local infrastructure that provides epidemiology services. Early detection of disease, communication with health care providers and the public, incident management, and recovery cannot effectively take place only from a central location.

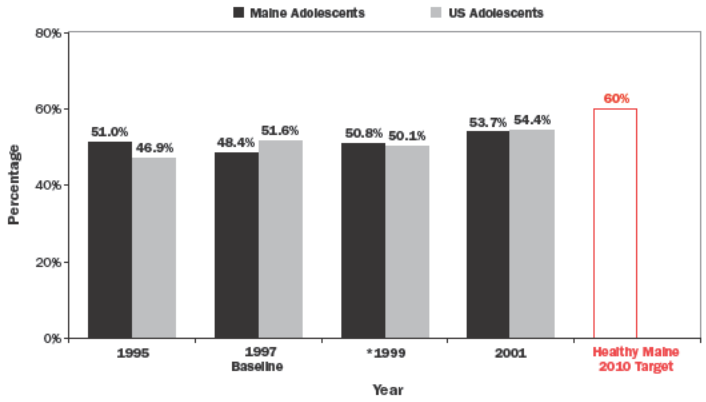
Fortunately, Federal funds to address bioterrorism, infectious disease outbreaks, and other public health emergencies are being used to help build epidemiology capacity in regions covering the State. Epidemiology teams, each consisting of a full-time nurse epidemiologist and a part-time physician medical officer, are being hired in each of six regions of the State. Each region is generally a county or multi-county region.

For related information, see Access Chapter's objective "Increase the number of geographic areas in Maine that have a health improvement plan linked to Healthy Maine 2010 goals and objectives."

- **25–11 Increase the proportion of adolescents who abstain from sexual intercourse or use condoms if currently sexually active.**

25–11a Increase the proportion of adolescents in grades 9–12 who have never had sexual intercourse.

Healthy Maine 2010 Baseline: 48.4%
Healthy Maine 2010 Target: 60%

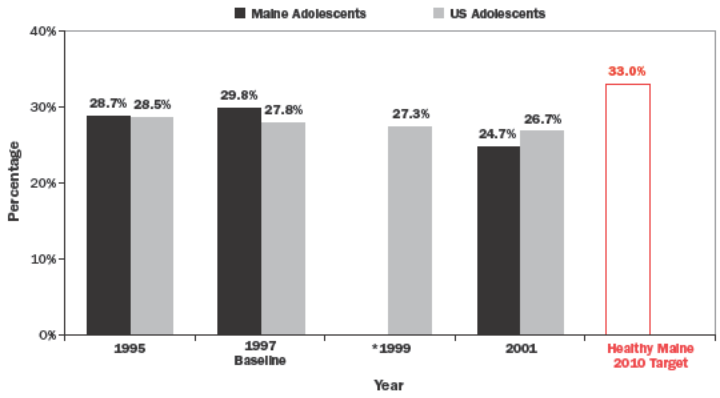


*1999 Data for Maine is Unweighted.

Source: Youth Risk Behavior Survey, Maine Department of Education. US Data: Youth Risk Behavior Survey, Centers for Disease Control and Prevention.

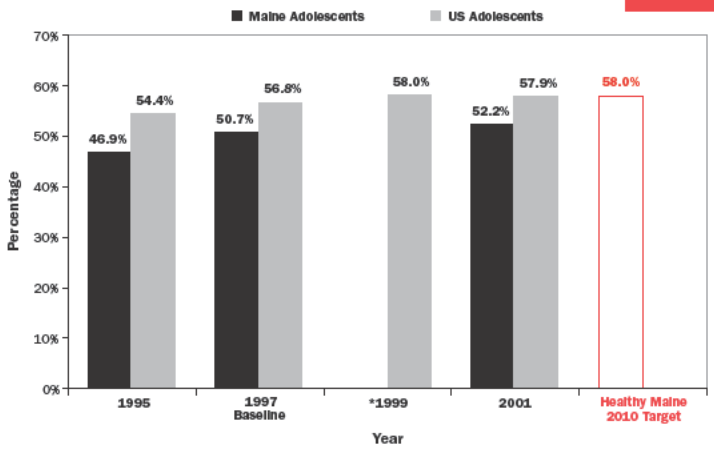
25–11b Increase the proportion of adolescents in grades 9–12 who have ever had sexual intercourse but who have not had sexual intercourse in the past three months.

Healthy Maine 2010 Baseline: 29.8%
Healthy Maine 2010 Target: 33%



*1999 Data Not Available for Maine.

Sou ce: Youth Risk Behavior Survey, Maine Department of Education. US Data: Youth Risk Behavior Survey, Centers for Disease Cont ol and Prevention.



*1999 Data Not Available for Maine.

Source: Youth Risk Behavior Survey, Maine Department of Education. US Data: Youth Risk Behavior Survey, Cente s for Disease Control and Prevention.

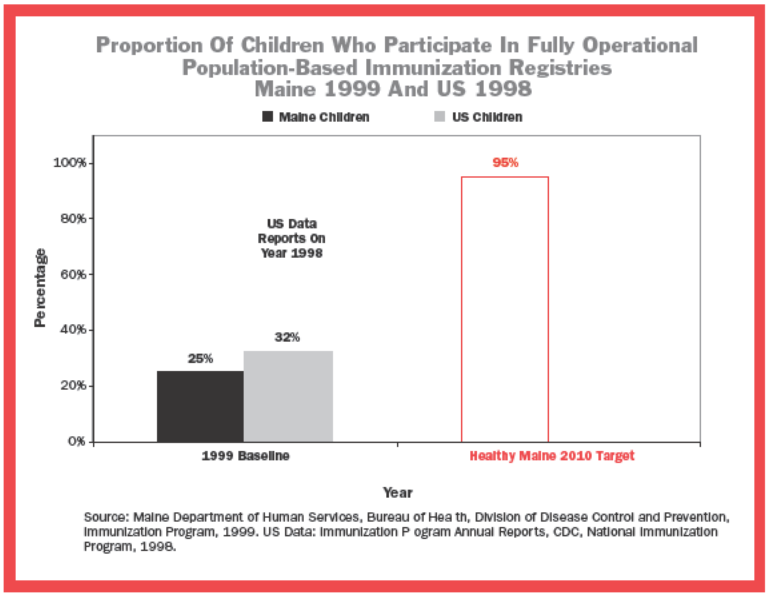
25–11c Increase the proportion of sexually active adolescents in grades 9–12 who used condoms at last intercourse.

Healthy Maine 2010 Baseline: 50.7%
Healthy Maine 2010 Target: 58%

Because young people experience a disproportionate share of STDs (including HIV) and unintended pregnancies when they engage in sexual behavior, it is particularly critical that this population group engage in behaviors that protect their health. Three major protective behaviors are targeted: abstaining from sexual intercourse (primary abstinence); reverting to abstinence for long periods of time after having had sexual intercourse in the past (secondary abstinence); and using condoms correctly every time if regular intercourse is occurring. Nationally, almost half of all sexually active adolescents did not use a condom at last intercourse, making them at very high risk for STDs and pregnancy. Therefore, while abstinence is a major focus, reaching out to help reduce risks in those adolescents who are already sexually active is also critical. Teaching comprehensive family life education that teaches abstinence and gives youth full information about reproductive health and improving access to preventive reproductive health care are two major strategies to assure our youth are making the healthiest choices possible.

- **14–26 Increase the proportion of children who participate in fully operational population-based immunization registries.**

  Healthy Maine 2010 Baseline: 25%
  Healthy Maine 2010 Target: 95%



Immunization registries are important tools that assist health care providers to manage and track immunization coverage of their patients. Registries keep patients' vaccine histories, identify patients who need specific vaccines, and alert providers to patients who are undervaccinated. With today's technology, this can be done with high security and confidentiality. Maine piloted its Web-based immunization information system, ImmPact, starting in 1997, and is now in the process of expanding its use Statewide.

- **14–22 Achieve and maintain effective vaccination coverage levels for universally recommended vaccines among young children.**

  Vaccines for children and adults are one of the safest and most effective ways to prevent diseases. Cost savings alone range from $2 for every dollar spent on recently approved vaccines to $24 for diphtheria, pertussis, and tetanus. Maine's childhood vaccine rates rose significantly during the 1990s, due in part to the Bureau of Health's commitment to providing all necessary childhood vaccines for free to all licensed health care providers, thereby reducing the cost barriers to parents; and due to educational and informational campaigns to educate parents and health care providers about the benefits of vaccines as well as how to increase vaccine rates. As a result of this success, the Bureau of Health's Vital Records do not have a report of a child dying in Maine from a vaccine-preventable disease in over a decade.

Maintaining and improving our excellent childhood immunization rates is a challenge since children now receive as many as 20 shots to protect against 11 potentially devastating diseases before the age of 2 years.

Estimated Vaccination Coverage Rates With Individual Vaccines Among Children 19–35 Months Of Age Maine 1994–2001

Vaccine	1994	1995	1996	1997	1998	Baseline 1999	2000	2001	Healthy Maine 2010 Target	US 1999
3 DTP/DT	97	99	98	98	99.1	97.0	95.2	97.5	99%	95.7
4 DTP/DT	82	90	91	90	91.4	86.9	88.3	91	98%	81.5
3 Polio	84	94	94	95	96.8	92.1	91.7	91.6	99%	89.3
1 MMR	91	98	95	95	93.6	92.0	94	94.9	99%	90.5
3Hib	90	95	95	96	94.4	95.9	94.2	95.4	99%	93.2
3Hep B	26	51	75	84	89.5	87.2	85.8	87.5	95%	87.6
Varicella	n/a	n/a	n/a	13	31.3	43.1	55	57.5	90%	54.6
3:3:1	n/a	94	91	91	n/a	89.3	87.9	88.4	99%	85.1
4:3:1	80	89	87	87	89	84.1	84.1	83.6	95%	77.9
4:3:1:3	n/a	87	85	84	86.3	82.9	83.3	82.4	90%	76.5
4:3:1:3:3	n/a	n/a	n/a	n/a	n/a	76.8	76	75.6	90%	71.3

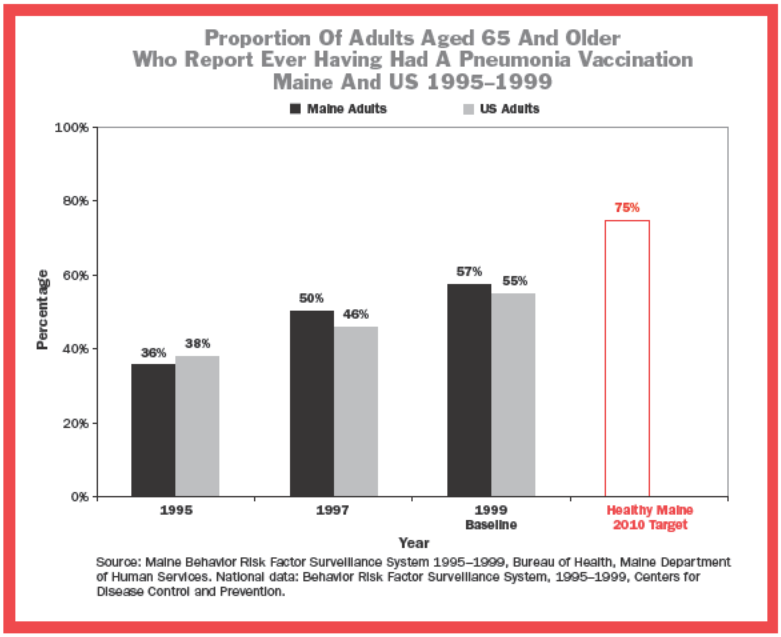
Source: Maine Department of Human Services, Bureau of Health, Division of Disease Control and Prevention, Immunization Program.

3 DTP/DT refers to 3 or more doses of diphtheria, tetanus toxoids and pertussis vaccine, or diphtheria and tetanus toxoids.
4 DTP/DT refers to 4 or more doses of diphtheria, tetanus toxoids and pertussis vaccine, or diphtheria and tetanus toxoids.
*3 **Polio** refers to 3 or more doses of poliovirus vaccine.*
*1 **MMR** refers to 1 or more doses of measles-containing vaccine, including MMR, which contains measles, mumps, and Rubella vaccines.*
*3 **Hib** refers to 3 or more doses of* Haemophilus influenzae *type b vaccine.*
*3 **HepB** refers to 3 or more doses of hepatitis B vaccine.*
***Varicella** refers to 1 dose of varicella vaccine.*
***3:3:1** refers to 3 or more doses of DTP/DT, 3 or more doses of poliovirus vaccine, and 1 or more doses of MMR.*
***4:3:1** refers to 4 or more doses of DTP/DT, 3 or more doses of poliovirus vaccine, and 1 or more doses of MMR.*
***4:3:1:3** refers to 4:3:1 and 3 or more doses of Hib.*
***4:3:1:3:3** refers to 4:3:1:3 and 3 or more doses of HepB vaccine.*

- **14–29 Increase the proportion of adults who are vaccinated annually against influenza and ever vaccinated against pneumococcal disease.**

14–29a Increase the proportion of adults aged 65 and older who have ever had a pneumonia vaccination against *streptococcus pneumoniae*.

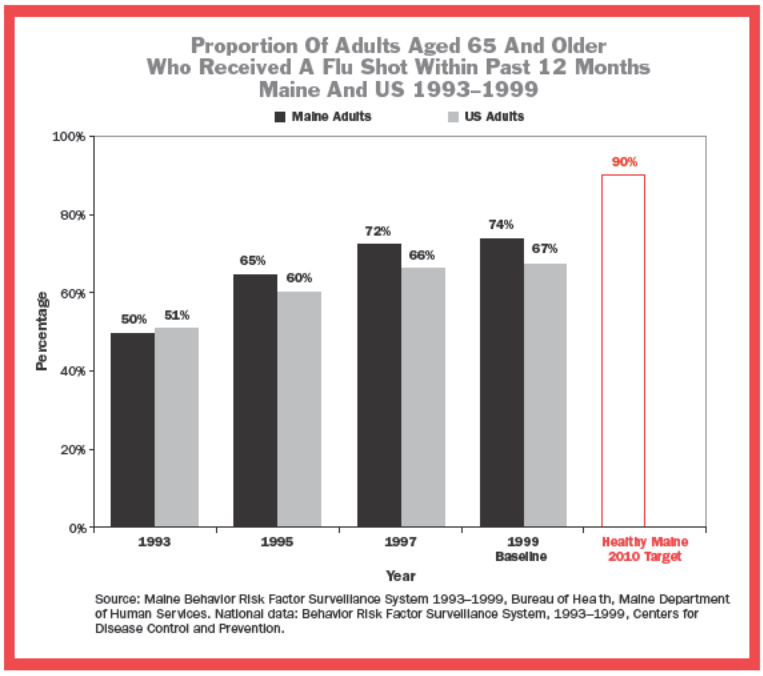
Healthy Maine 2010 Baseline: 57%
Healthy Maine 2010 Target: 75%



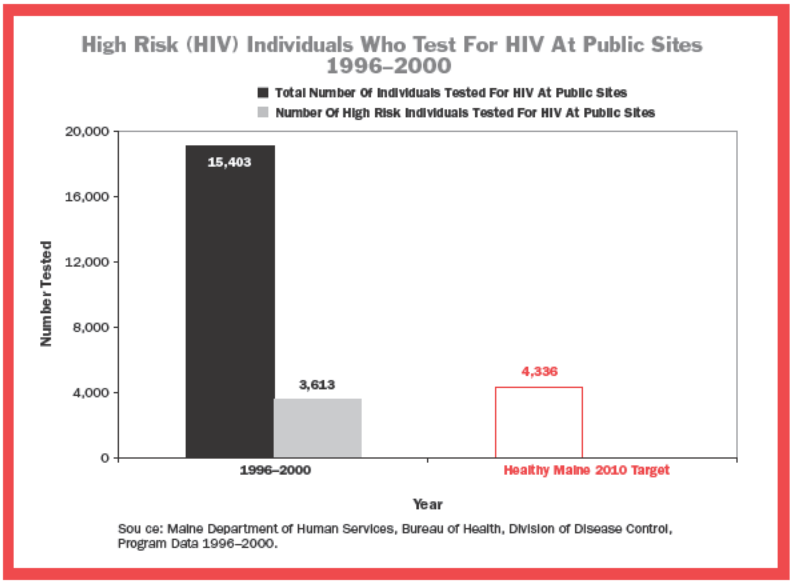
14–29b Increase the proportion of adults aged 65 and older who received a flu shot within the past 12 months.

Healthy Maine 2010 Baseline: 74%
Healthy Maine 2010 Target: 90%

Most vaccine-preventable diseases in the United States as well as in Maine occur in adults. For instance, nationally, an estimated 50,000–80,000 people die from pneumococcal disease or influenza annually. Pneumonia and influenza are typically the sixth leading cause of death among elders each year. Adults considered to be at high risk for complications from influenza and pneumococcal disease include those over the age of 65, and those with diseases or other conditions that increase their risk, including diabetes mellitus, chronic liver, lung, or cardiac disease, HIV infection, cancer, recipients of organ transplants, or immunosuppressive therapies.



Source: Maine Behavior Risk Factor Surveillance System 1993–1999, Bureau of Health, Maine Department of Human Services. National data: Behavior Risk Factor Surveillance System, 1993–1999, Centers for Disease Control and Prevention.



Source: Maine Department of Human Services, Bureau of Health, Division of Disease Control, Program Data 1996–2000.

- **13–12 (Developmental) Increase the proportion of adults in publicly funded HIV counseling and testing sites who are screened for STDs and immunized against hepatitis B.**

Healthy Maine 2010 Baseline: 3,613
Healthy Maine 2010 Target: 4,336

High-risk individuals include males who have sex with males (MSM), injectable drug users (IDU), and people with high-risk heterosexual contacts (including MSM, IDU, and people who are HIV-positive).

This objective is developmental but can be partially measured by the number of high-risk individuals being tested for HIV.

Maine has ten publicly funded HIV testing sites that offer both anonymous and confidential testing by certified HIV Prevention Counselors. Their locations are:

The Clinic	Auburn
Dayspring AIDS Support Services	Augusta
Bangor STD Clinic	Bangor
Downeast Health Services	Ellsworth, Machias, Calais
Tri-County Health Services	Farmington
ACAP – Health 1st	Presque Isle, Houlton, Fort Kent
The AIDS Project	Portland
Portland STD Clinic	Portland
Midcoast Family Planning	Rockland
The AIDS Project	Sanford

For more information on these sites, call 287-3747.

An estimated 65,000 people contract hepatitis B every year across the country, and about 70% of them have been seen in settings such as HIV testing sites in which they could have received a vaccine to prevent them from contracting this devastating disease. People at risk for HIV are usually at risk for other STDs since they share some of the causative risk behaviors such as unprotected sex, and since HIV infection itself makes one more susceptible to contracting other STDs.

- **14–1 Reduce or eliminate indigenous cases of vaccine-preventable diseases.**

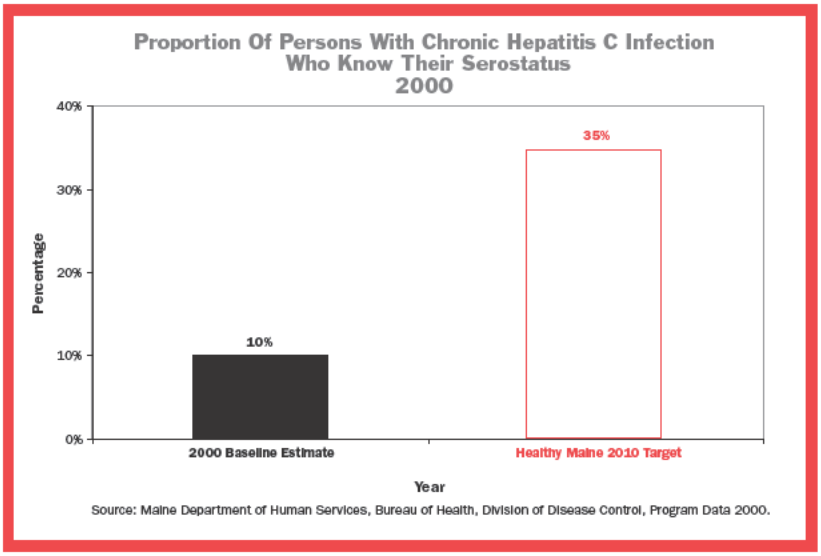
Cases Of Selected Notifiable Diseases Preventable By Vaccination, Maine, 1996–2001

Disease	1996	1997	1998	1999	2000	2001	Healthy Maine 2010 Target*
Haemophilus Influenzae (invasive)	1	5	5	8	1	1	0
Hepatitis A	26	66	20	14	11	11	3
Hepatitis B (acute)	8	6	5	1	5	7	1
Measles (Rubeola)	0	1	0	0	0	0	0
Meningococcal	15	18	8	5	7	9	2
Mumps	0	0	0	0	0	0	0
Pertussis	55	11	5	36 [1,2]	51 [1]	23 [1]	14
Rubella	0	0	0	0	0	0	0
Varicella	125	172	82	26	43	34	5

[1] Number of cases is reported from program data vs. CDC.
[2] Nine additional cases were on Campobello Island in Canada for a total of 45.
* For children age 2–18 years old.
Prepared by staff at Maine Immunization Program, Bureau of Health.

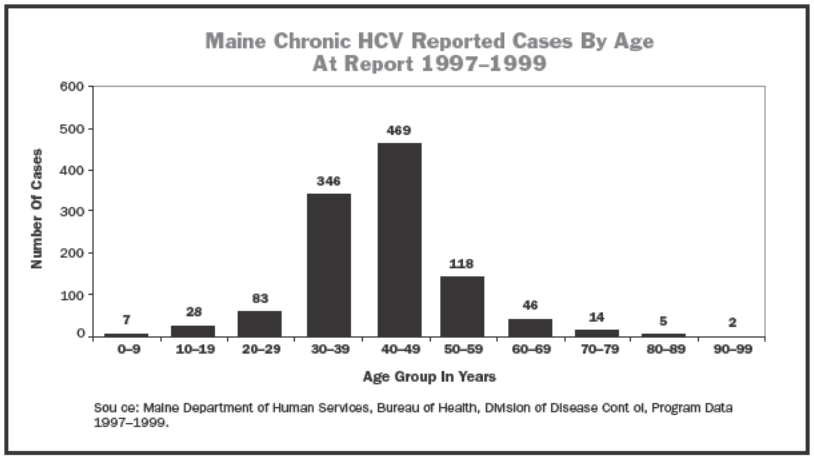
- **14–10 (Developmental) Increase the proportion of persons with chronic hepatitis C infection who know their serostatus.**

Baseline estimate = fewer than 10% of Mainers with hepatitis C (2,000 out of 15,000–20,000) know their status. Healthy Maine 2010 Target: 35%



Hepatitis C (HCV) is a bloodborne infection that is emerging as a major public health threat to the people of Maine and the US. It infects individuals of all ages, ethnic groups, and socioeconomic classes in urban and rural areas of Maine. However, 65% of those infected in Maine are men, and 70% are among those ages 30–49 years old. The two major risk factors for hepatitis C in Maine and the US are a history of sharing needles for injectable drugs (even one time) or a history of receiving a blood transfusion or blood products prior to 1992.

Currently, an estimated 15,000–20,000 Maine residents have hepatitis C. Yet, because of the slow progression of the disease and its lack of outward symptoms early on, most are unaware of their infection. Currently, fewer than 2,000 have been identified by their medical providers. Since 90% of those infected are unaware of their infection, they are missing opportunities for preventive and therapeutic care that could prevent the progression of their disease or transmission to others.



Health expenditures for hepatitis C in Maine are skyrocketing – in 1999, Maine's Medicaid Program (now MaineCare) spent over $10 million on the treatment of people with hepatitis C.

2002 RECOMMENDED ROUTINE VACCINES FOR YOUNG CHILDREN		
DTaP	Diphtheria, Tetanus, Pertussis	2, 4, 6, 15–18 months, 4–6 years
Hib	Haemophilus influenzae Type b	2, 4, 6, 12–15 months
IPV	Inactivated Polio	2, 4, 6 months, 4–6 years
MMR	Measles, Mumps, Rubella	12–15 months, 4–6 years
Varicella	Varicella (Chicken pox)	12–18 months
PCV	Pneumococcal	2, 4, 6, 12–15 months
HepB	Hepatitis B	At birth, 1–4, 6–18 months
Influenza	Influenza	If in a high-risk group or wishes immunity
2002 RECOMMENDED ROUTINE VACCINES FOR ADOLESCENTS		
Td	Tetanus Diphtheria	11–14 years, then every 10 years
Hep B	Hepatitis B	If unvaccinated
MMR	Measles, Mumps, Rubella	If did not receive 2 doses when younger
Varicella	Chicken Pox	If non-immune
PPV	Pneumococcal	If in a high-risk group
Hep A	Hepatitis A	If in a high-risk group
Influenza	Influenza	If in a high-risk group or wishes immunity
Meningitis	Meningococcal	Consider for college freshmen living in dormitories
2002 RECOMMENDED VACCINES FOR ADULTS		
Td	Tetanus Diphtheria	Every 10 years
MMR	Measles, Mumps, Rubella	If born after 1956 and non-immune
Influenza	Influenza	Annually to all adults 50 years and older Annually to adults under 50 years if at risk or who wish immunity
PPV	Pneumococcal	1–2 doses to everyone over 65
Hep A	Hepatitis A	2 doses for those at risk or wishing immunity
Hep B	Hepatitis B	3 doses for those with risk factors
Varicella	Chicken Pox	2 doses if non-immune
Meningitis	Meningococcal	If in a high-risk group

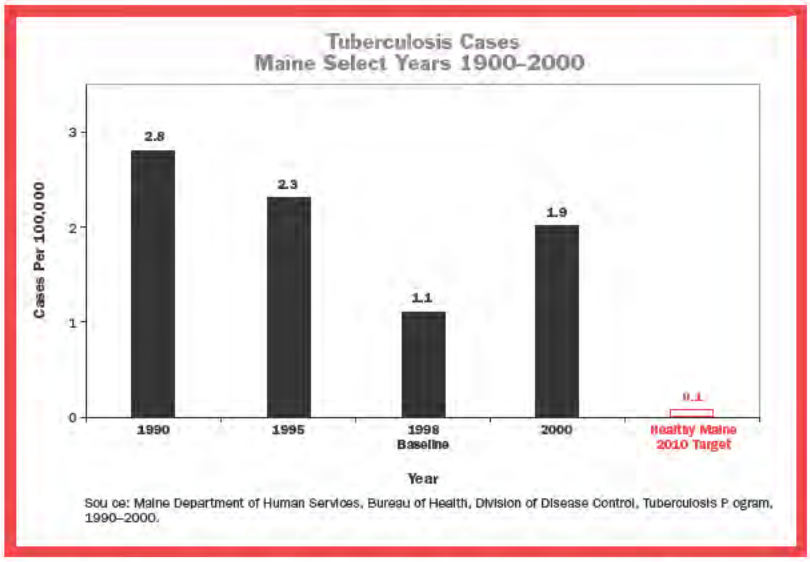
DtaP, DT, Td, IPV, MMR, Hib, Hep B, Varicella, PPV, PCV, and Influenza vaccines given to all licensed health care providers for free by the Bureau of Health, with contributions by taxpayer dollars and Maine's HMOs.

To determine high-risk groups or to obtain updated information, ask your doctor or check on the Web at: www.cdc.gov/nip/acip

- **14-11 Reduce tuberculosis.**

Healthy Maine 2010 Baseline: 1.1
Healthy Maine 2010 Target: 0.1

Only 100 years ago, tuberculosis was Maine's single biggest cause of death, and now has been virtually eliminated as a cause of death here. However, cases still occur in Maine sporadically throughout the year. With steady increases in the proportion of Maine residents who were born in other countries, our vigilance in screening and initiating early treatment for tuberculosis must continue.



Source: Maine Department of Human Services, Bureau of Health, Division of Disease Control, Tuberculosis Program, 1990–2000.

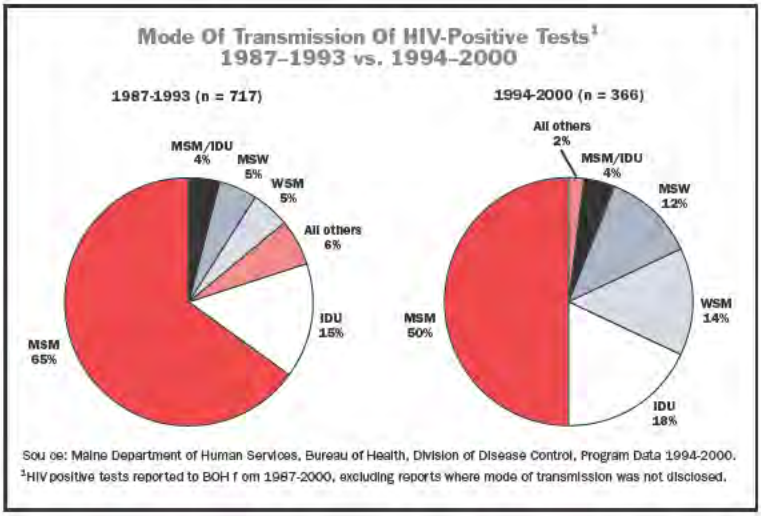
- **14-18 (Developmental) Reduce the number of courses of antibiotics for ear infections for young children.**

Overuse of antibiotics has led to significant increases in antibiotic-resistant bacteria, including in common bacteria that cause ear infections, pneumonia, and meningitis. One of the most common sources of overuse is in the treatment of otitis media, also known as ear infections. This overuse can be reduced by not treating those infections that are determined to be only otitis media with effusion rather than acute bacterial otitis media, and by vaccinating children with a vaccine protecting them against pneumococcal bacteria, the most common bacterial cause of ear infections.

- **13-7 (Developmental) Increase the number of HIV-positive persons who know their serostatus.**

MSM: males who have sex with males
IDU: injectable drug users
MSW: males who have sex with females
WSM: females who have sex with males
MSM/IDU: people who are both MSM and IDU

Since 1982 more than 500 AIDS-related deaths among Maine citizens have been reported to the Bureau of Health. It is estimated that 1,200 Mainers are currently living with HIV, and overall HIV prevalence is increasing.



Source: Maine Department of Human Services, Bureau of Health, Division of Disease Control, Program Data 1994-2000.
[1]HIV positive tests reported to BOH from 1987-2000, excluding reports where mode of transmission was not disclosed.

In 2000, the Centers for Disease Control and Prevention estimated that up to one-third of all HIV-infected individuals in the US had not sought testing and were therefore unaware of their infection. Of those who tested HIV-positive in Maine during 2000, 35% were diagnosed with AIDS at or near the time of their HIV diagnosis, indicating that they had likely been unknowingly infected with HIV for an extended period of time. Knowledge of one's HIV status is critical, since an infected person can take steps to reduce the likelihood of transmitting HIV to others and reap the benefits of effective medical treatment available for this disease.

The impact and face of HIV in Maine has evolved greatly over the past decade. Once considered an acute deadly disease, medical advances have allowed many people with HIV to maintain good health and quality of life. Since a peak in 1993 of 71 AIDS deaths, this number has declined to fewer than 20 deaths in recent years.

There have been gradual shifts in the proportions of reported risk behaviors that transmit HIV in Maine. As was the case throughout most of the US during the 1980s, HIV in Maine was most commonly transmitted through male-to-male sexual contact. Although unprotected sexual contact with males continues to be the most often reported mode of transmission in Maine, unprotected heterosexual contact and sharing needles during drug use became more common during the mid-1990s.

As with mode of transmission, the prevalence of HIV among certain races and ethnic groups in Maine has shifted over time. The beginning of the HIV epidemic was characterized by high rates of diagnosed infections among Caucasians. More recently, there have been greater proportions of HIV infections among people of color, particularly among African-American and Hispanic people. Whereas racial and ethnic minority groups made up less than 8% of HIV reports received by the Bureau of Health between 1989 and 1994, they comprise 15% of reports received after 1994.

HIV/AIDS FACTS

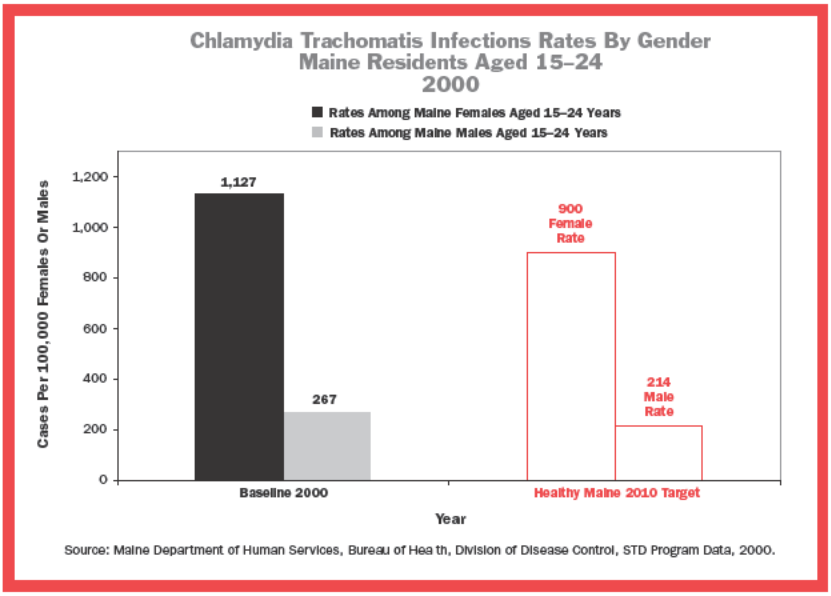
DO YOU KNOW:

- **Just over 1,000 people have been diagnosed with AIDS in Maine since 1982, and just over 500 have died.**
- **It is estimated that 1,200 people are living with HIV in Maine; about one-third do not know they have HIV.**
- **There are fewer AIDS-related deaths in Maine as well as across the country because of improved treatment. However, the incidence of HIV infection has not decreased in recent years. Therefore, the numbers of people living with HIV (prevalence) is increasing, making outreach and prevention efforts even more important and challenging.**
- **Of those in Maine living with diagnosed HIV infection:**
  - **51% are men who have sex with men**
  - **19% are injection drug users**
  - **23% are infected through heterosexual sex**
- **Nationally, half of all people with HIV infection were infected when they were under 25 years of age.**
- **There have been about 19 million deaths due to AIDS in 20 years worldwide.**

- **25–1 Reduce the proportion of adolescents and young adults with Chlamydia trachomatis infections.**

Cases per 100,000 females aged 15–24 years
Healthy Maine 2010 Baseline: 1,127
Healthy Maine 2010 Target: 900

Cases per 100,000 males aged 15–24 years
Healthy Maine 2010 Baseline: 267
Healthy Maine 2010 Target: 214



Sexually transmitted diseases (STDs) are behavior-linked diseases that result from unprotected sex. Chlamydia is an STD spread person to person by close physical contact during vaginal, anal, and oral sex.

A number of factors contribute to the rapid spread of STDs. Among them:

- Many of them are asymptomatic (85% of women and 50% of men with chlamydia have no symptoms);
- There is often a lag time between infection and complications (infertility and ectopic pregnancy often show up years after chlamydia infection);
- Young women are more susceptible to some STDs (especially chlamydia);
- Secrecy about sexuality and STDs in US culture is prevalent despite a high prevalence of sexual messages and images bombarding our media.

Chlamydia among adolescents and young adults is the focus of this objective since it is the most common STD reported in Maine. With more than 1,000 cases reported each year in Maine, chlamydia disproportionately affects adolescents and young adults.

Infections Caused By Foodborne Pathogens Maine 1999

Foodborne Pathogens	1999	Healthy Maine 2010 Target
Campylobacter	13	**8.5**
Escherichia coli	3.2	**1.5**
Listeria monocytogene	0.4	**0.2**
Salmonella	10.6	**6.3**
Cyclospora cayetanensis	0	**0**
Postdiarrheal hemolyticuremic syndrome	0	**0**
Congenital Toxoplasma gondii	Data Not Available	**0**

- **10–1 Reduce infections caused by key foodborne pathogens.**

  Infections due to foodborne pathogens are on the rise for several major reasons: improper food preparation, storage and distribution practices; insufficient training of retail workers; an increasingly global food supply; and growing populations of those at risk such as elders and the immunocompromised. Many of these infections cause severe disease and are deadly, especially in high-risk populations such as children, elders, and the immunocompromised.

  With about 70% of all meals prepared at home and national surveys showing high prevalence of unsafe food preparation at home, one of our biggest challenges is educating the consumer in safer practices, especially pertaining to meat and poultry handling, as well as fruit and vegetable washing.

  Additionally, with about 40% of a family's food budget being spent at eating establishments in which the food is already prepared, and with evidence that these foodborne outbreaks are on the rise but difficult to detect, changing the way we inspect eating establishments and assuring that food workers are trained in food handling and using good practices pose challenges across the country. Maine currently has nine sanitarians to inspect over 12,000 establishments, which are mostly eating establishments, across the State. In the early 1990s, there were 19 such sanitarians. There appears to be an increase in the number of eating establishments in Maine in which food handlers have little background in standard US practices. Therefore, strategies are being implemented by the Bureau of Health to more efficiently utilize sanitarians' time by changing the way they inspect restaurants as well as utilizing their time to help educate food handlers.

  This objective measures the most common and/or most virulent pathogens that we are able to track. However, it is felt the most common cause of foodborne illness outbreaks are Norwalk-Like Viruses, which are not tested for by routine laboratories. CDC test results show that 93% of food samples which test negative for bacteria are positive for these pathogens. Since human feces are the reservoir for these viruses, they also can be a marker of contamination.

Key Food Safety Practices to Avoid Foodborne Illnesses:

- **Clean: Wash hands and surfaces often.**
- **Separate: Don't cross-contaminate.**
- **Cook: Cook to proper temperatures.**
- **Chill: Refrigerate promptly.**

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Injury

GOAL

Reduce injuries, disabilities, and deaths due to unintentional injuries, suicide, and violence.

OVERVIEW

Most people at some point in their lives will sustain a significant injury. For Maine people under the age of 58, deaths from injuries far surpass all other causes of death and are responsible for more productive years of life lost than any other cause. Even though death rates due to chronic diseases in Maine people over age 57 surpass those due to injuries, injury death rates are higher in this age group than among younger people. In fact, injury is the third leading cause of death for all Maine people age 85 and younger.

In addition to deaths and lifelong pain and suffering, the economic costs from serious injuries are high. Injuries represent the second leading cause of direct medical costs among civilian non-institutionalized individuals. It has been estimated that the average cost of an injury hospitalization in Maine from 1995–1997 was about $20,600, for a total cost of $231 million a year. Nationwide, one-third of all hospitalizations are due to injury.

Despite the enormous impact of injuries, there is a basic misconception that many are the result of unpreventable "accidents." In fact, most injuries are predictable and preventable. In Maine, as well as across the country, we face challenges in building data systems to track and evaluate the impact of injuries, as well as increasing public understanding of injury risk factors and effective prevention practices.

Although each type of injury requires its own set of prevention initiatives, often effective interventions act synergistically. For instance, those interventions that reduce alcohol abuse also reduce the risk of injury due to motor vehicle crashes, drownings, falls, and intentional injuries. Interventions that identify and assist those individuals who are threatening violence to themselves may also protect the safety of others.

Effective injury prevention initiatives have the potential to affect all of us. For instance, if every vehicle occupant were properly restrained; if every vehicle driver, including snowmobile drivers, were sober; if

every vehicle driver drove at or below the speed limit; if every child had a safe area in which to play; if every home had a working smoke alarm on every level and sleeping area; if every senior had a home with a low risk of falls; if no home had an unlocked and loaded gun; if every home and school were safe from abuse, all of us would live significantly longer and healthier lives.

PRIMARY
SECONDARY
TERTIARY

Strategies

Primary and Secondary prevention strategies to reduce injuries are focused on the three E's: Environment, Education, and Enforcement.

Policies that Prevent the Risk for Injury: Laws requiring vehicle restraints; driving, speed, and alcohol laws; firearm safety laws (such as requiring trigger locks); smoke detector requirements and safety codes for buildings; home fire escape plans; and enforcement of anti-harassment and bullying prevention policies are some examples.

Initiatives that Prevent the Risk for Injuries: Home safety programs for the elderly to reduce falls; firearm safety courses; playground safety measures; violence prevention initiatives that raise awareness of violence and abuse; child safety and booster seat checks and seat procurement programs; and media campaigns that raise awareness and educate people about ways to prevent injury (such as changing batteries in smoke detectors, and the importance of having child safety seats checked) are some examples.

Policies that Reduce the Risk for Injuries: Some examples include school-based crisis response plans and protocols, routine emergency department screening of injured persons for risk of self-inflicted injuries or assault, graduated drivers' licenses, health care provider forms that ask all patients risk for abuse questions, and enforcement of motor vehicle speeding laws.

Initiatives that Reduce the Risk for Injuries: Interventions that make smoke detectors more available for low income people, the elderly, residents of mobile homes, and other high-risk homes; violence prevention initiatives that give information and education to those at risk for violence – those who have a history of relationship abuse, adolescents, substance abusers and their families; initiatives that make trigger locks more available to families with children; driver education for new drivers; conflict management, anti-bullying, and other safe school programs; and substance abuse prevention and treatment programs are some examples.

Policies that Reduce the Burden of Injuries: Criminal justice laws regarding child abuse, domestic violence, sexual assault, homicide, motor vehicle crashes related to substance abuse, and stalking are examples.

Initiatives that Reduce the Burden of Injuries: Help lines and treatment programs, including post-trauma treatment for those who are the victims of domestic violence, sexual assault, child abuse, or self-inflicted injuries are examples.

Health Disparities

(Populations at risk for injury, based on national data in *Healthy People 2010*)

- **Children, Teens, and Young Adults** (higher death rates from motor vehicle crashes, suicide, and house fires; higher risk of injury from falls and fires; at risk for physical, sexual, and emotional abuse)
- **Elders** (higher risk for death from house fires, falls, and suicides; at risk for physical and emotional abuse)
- **People with Disabilities** (higher risk for physical, sexual, and emotional abuse; higher risk for death from house fires)
- **Females** (higher rates of reported victimization from abuse and domestic violence; higher rates of non-fatal, self-inflicted injuries)
- **Males** (higher death rates from injury)
- **African Americans** (higher death rates from unintentional injury, drowning; higher rates of homicide victimization; steepest increase in youth suicide rates)
- **Hispanics** (higher rates of homicide victimization)
- **Native Americans** (disproportionately higher death rates from motor vehicle crashes, residential fires, and drowning; higher overall death rates due to injury; children at higher risk for home fire deaths)
- **Sexual Minorities** (higher risk for injury victimization and self-inflicted injuries)
- **Low Socioeconomic Status** (higher risk for injury and violence; adolescents from families with lower income at higher risk for physical assault)

Objectives

Objective numbers are *Healthy People 2010* objective numbers.

- **15–10, 15–11 (Developmental) Create a comprehensive injury surveillance system that routinely collects, interprets, analyzes, and disseminates injury, suicide, and violence data.**

  Improved data collection, analysis, and dissemination is needed to monitor the leading causes of injury and to allow informed decisions about focusing limited resources. While injury mortality data are easily available, for every death there are an estimated 25–30 injuries serious enough to require hospitalizations and about 600 other injuries that receive medical attention on an outpatient basis. The accessibility and quality of these morbidity data have not been reliable, but due to improvements in coding they are becoming more useful. Collecting and conducting analysis of injury data are time- and resource-consuming, but are necessary if effective initiatives are to be implemented.

FIREARMS

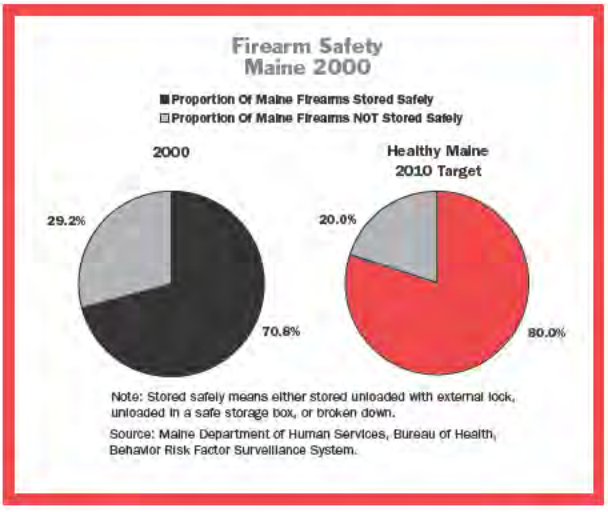
The United States has by far the highest rate of gun violence of any developed country, including the highest rate of lethal childhood gun violence. The large increase in homicides seen nationally between 1979 and 1993 resulted solely from the increase in firearm-related homicides. For each of the approximately 33,000 Americans killed by a firearm, two more were treated for nonfatal gunshot wounds in a hospital's emergency department. Safe gun storage is a major strategy to reduce injury resulting from these powerful weapons. Approximately one in five Americans live in homes with an unlocked and loaded firearm; placing family members and visitors at risk for unintentional or intentional injury from these guns.

Firearms pose different risks for different age groups. For instance, young children have the strength to fire a gun, but lack the knowledge that guns are not child's play. A 1991 General Accounting Office study found that childproof safety devices could have prevented all cases of unintentional firearm injuries to children under six. Elevated suicide rates among adolescents are often attributable to easy access to firearms. For any age, a gun in the home is 18 times more likely to be involved in the death of a member of the household rather than a stranger.

In Maine, the rate of suicide by firearms is higher than firearm homicides, and more than half (60%) of all suicides are committed with a firearm. Maine's death rate due to firearm suicide is higher than the national rate and the second highest in New England.

- **15–4 Increase the proportion of firearms stored safely in homes – unloaded and locked.**

  Firearms Stored Safely
  Healthy Maine 2010 Baseline: 70.8%
  Healthy Maine 2010 Target: 80%



SMOKE ALARMS

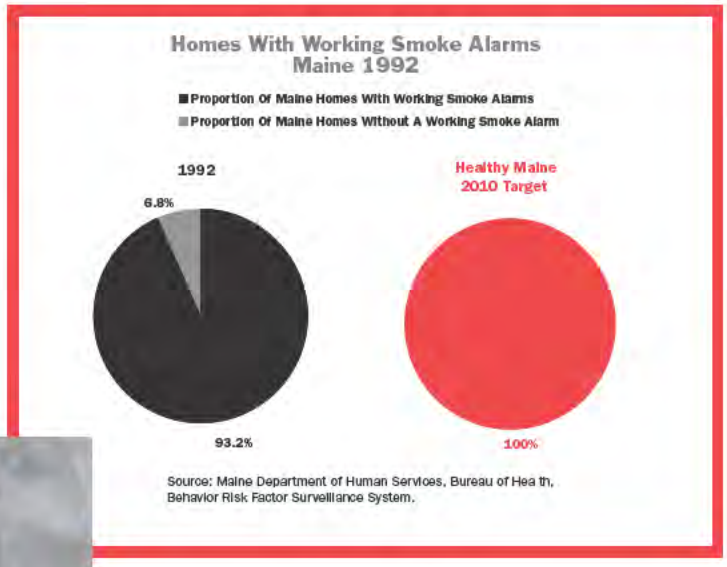
An average of 17 Maine people die every year in fires, and several dozen are hospitalized because of fire-related injuries. Elders and children are disproportionately affected by fires – they are less likely to be able to escape and they are more susceptible to severe injuries from fires. In fact, for Maine children ages one through five, fires are the second leading cause of death. Nationally, young children have a death rate from fire more than twice the fire death rate for all ages.

Functioning smoke alarms are critical to preventing fire-related injuries and death. Two-thirds of all fire-related deaths and injuries among young children under age five occur in homes without functioning smoke alarms. If a fire occurs in a home with functioning smoke alarms on every level and in every sleeping area, the warning provided for people to escape means they are twice as likely to survive than if there were no smoke alarm.

- **15-26 Increase the proportion of homes with working smoke alarms.**

  Homes With Working Smoke Alarms
  Healthy Maine 2010 Baseline: 93.2%
  Healthy Maine 2010 Target: 100%

  The last time this question was asked for BRFSS was in 1992 when 93.2% of adults reported having a working smoke detector in the building. BRFSS plans on asking this question again in 2004 and possibly in later years.



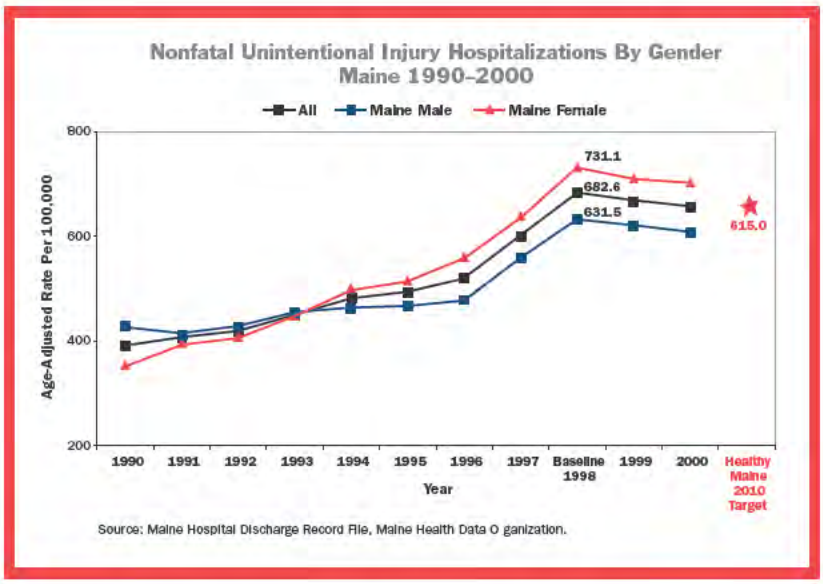
Unintentional Injuries

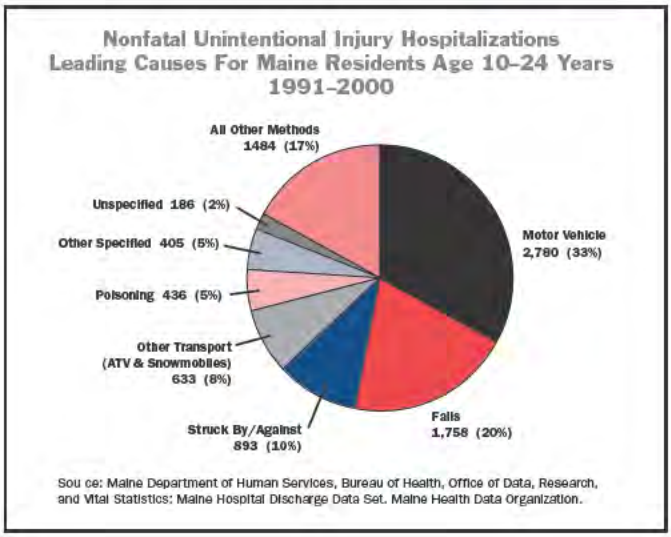
Unintentional injuries are those not expected or intended to take place, also known as "accidents." They account for two-thirds of all injury deaths. The most common unintentional injuries are: motor vehicle crashes, drownings, unintentional poisonings, falls, fires, and suffocation.

- **15–14 Reduce nonfatal unintentional injuries.**

  Healthy Maine 2010 Baseline: 682.6
  Healthy Maine 2010 Target: 615.0

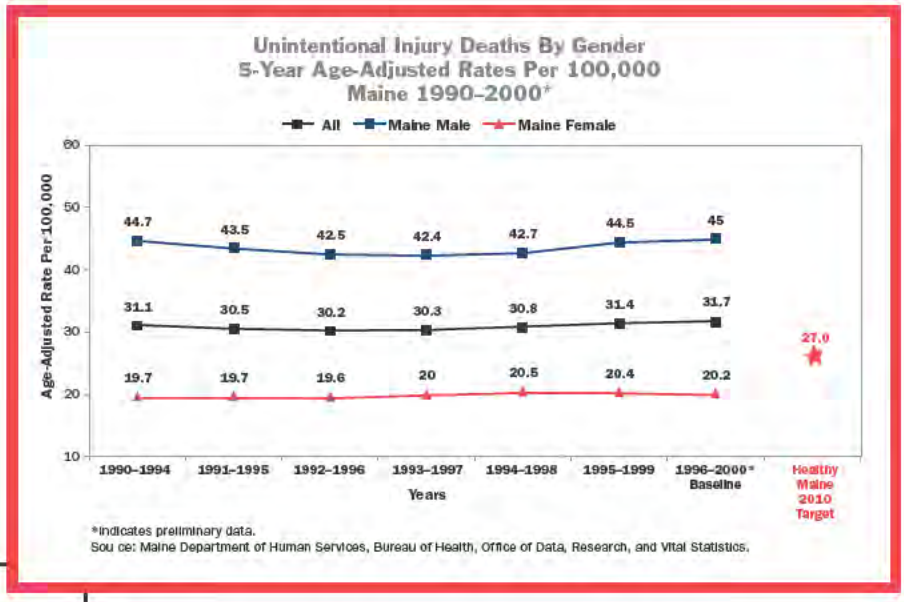
  This objective is developmental on the Federal level.

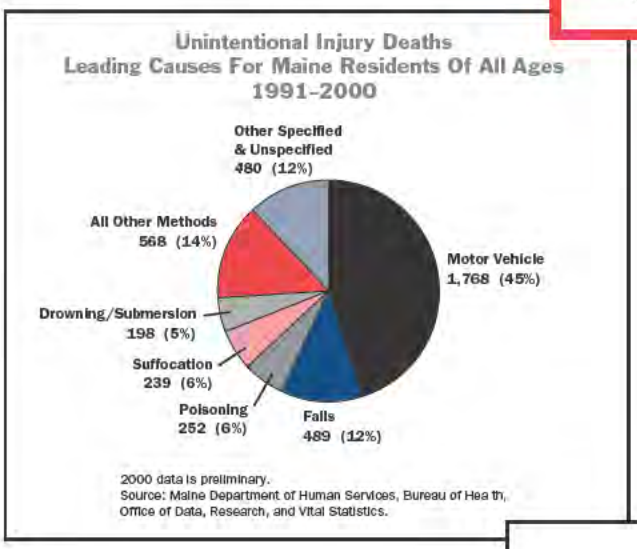


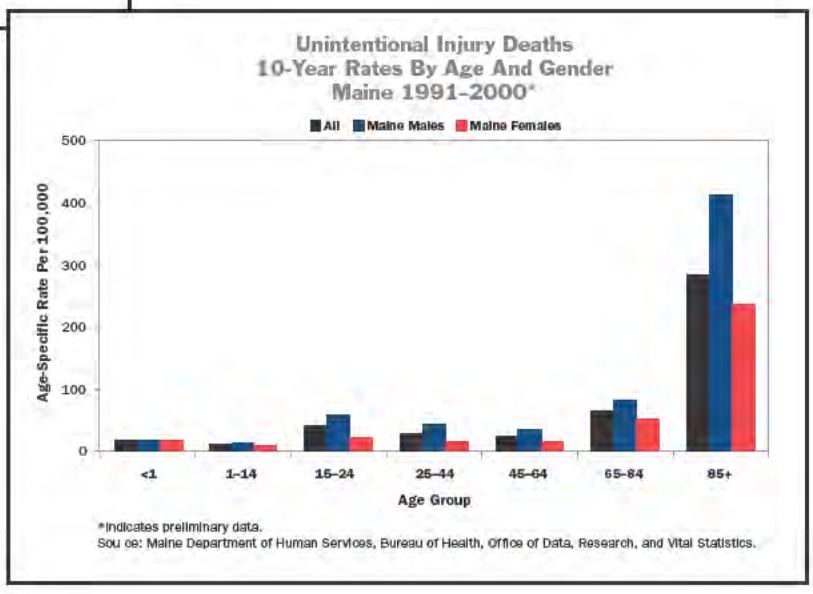


- **15-13 Reduce deaths caused by unintentional injury.**

  Healthy Maine 2010 Baseline: 31.7
  Healthy Maine 2010 Target: 27.0





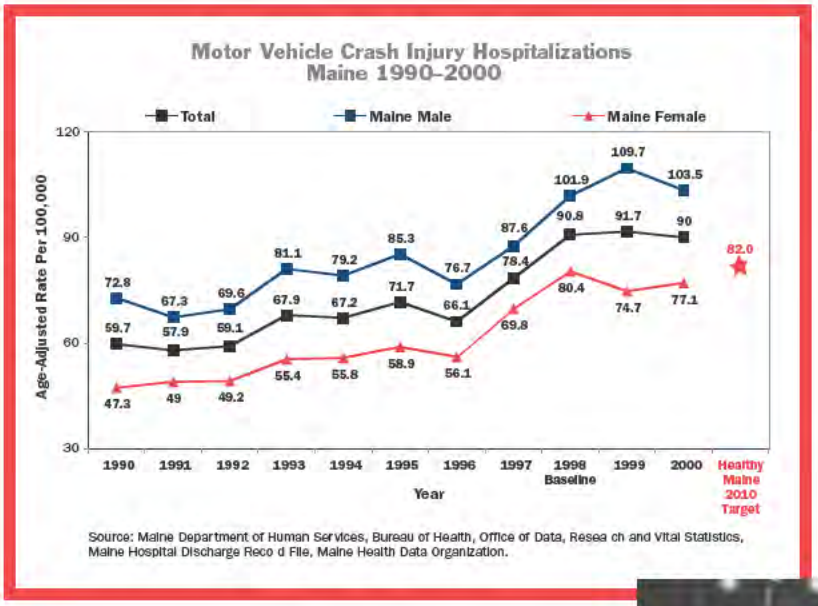


MOTOR VEHICLE CRASHES

On average, one person dies about every two days on Maine highways from motor vehicle crashes (170–200 people per year, with an average of 186). Motor vehicle crashes are among the three most common causes of hospitalization due to injury for all ages above four years old, resulting in about 1,400 hospitalizations per year of Maine residents. Nationally, about 24,000 die prematurely from motor vehicle crashes.

In Maine, over one-quarter (27%) of motor vehicle-related deaths are linked to alcohol, which is down from over half (60%) only 20 years ago. Motor vehicle crashes are the leading cause of death in the US for people ages 1–29 years. Death rates are especially high for those ages 16–24 years and over 75 years. Death rates per mile traveled are 16 times higher for motorcycles than for cars. Most bicyclist deaths are associated with crashes involving motor vehicles with resulting head injuries.

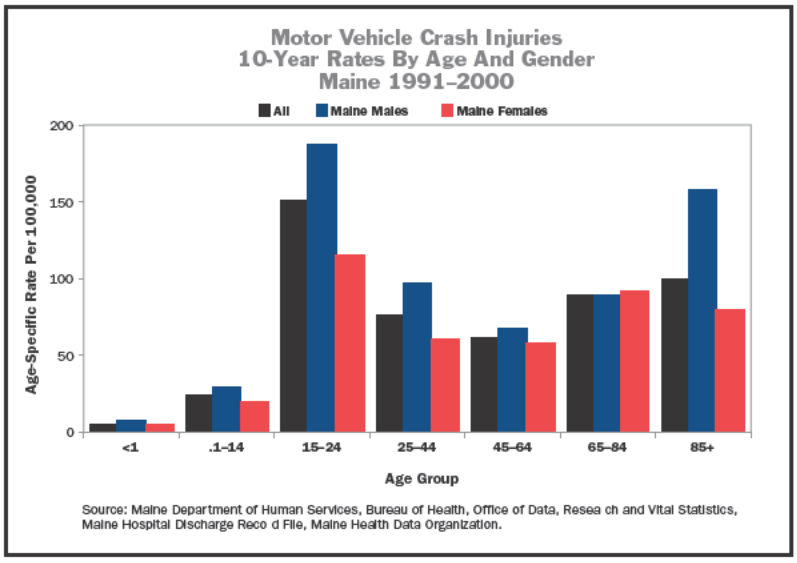
Effective strategies to reduce injuries and deaths from motor vehicle crashes include implementing and enforcing safety restraint laws such as those requiring the use of seat belts, booster seats or child safety seats; allowing primary enforcement of seat belt laws (Maine only allows secondary enforcement); enforcing speed and drunk driving laws; requiring graduated licenses (Maine law includes some aspects of graduated licensing); and mandating the wearing of motorcycle and bicycle helmets.



Source: Maine Department of Human Services, Bureau of Health, Office of Data, Research and Vital Statistics, Maine Hospital Discharge Record File, Maine Health Data Organization.

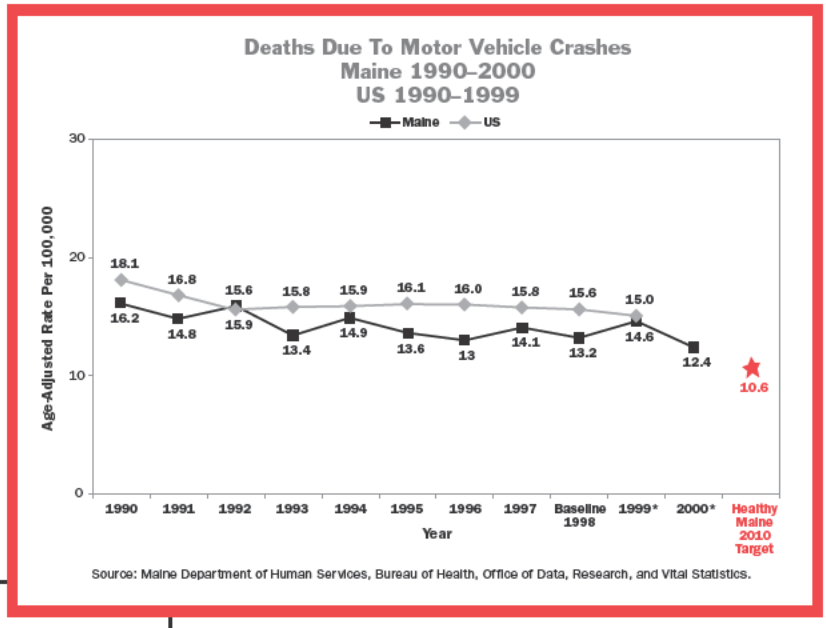
- **15–17 Reduce nonfatal injuries caused by motor vehicle crashes.**

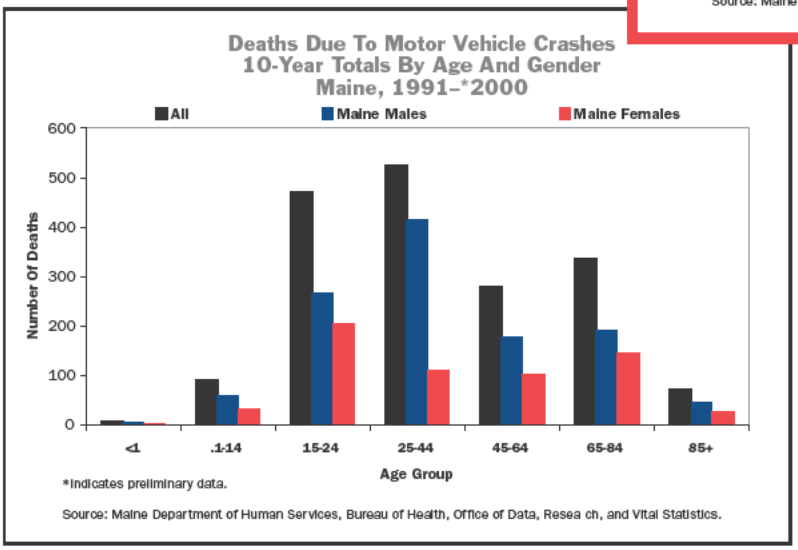
  Healthy Maine 2010 Baseline: 90.8
  Healthy Maine 2010 Target: 82



- **15–15 Reduce deaths caused by motor vehicle crashes.**

  Healthy Maine 2010 Baseline: 13.2
  Healthy Maine 2010 Target: 10.6





VEHICLE RESTRAINTS

The most effective way to reduce one's risk of death or serious injury from a motor vehicle crash is to properly restrain oneself in a seat and shoulder belt (if taller than about 4'9" or over 80 pounds) or in a booster or car seat (if shorter than 4'9" or under 80 pounds). About 80% of Maine adults use seat belts. Safety restraint laws and proper enforcement of them have been shown to be very effective in reducing injury and death from motor vehicle crashes. In fact, the only age for which motor vehicle crashes are not among the most common causes of hospitalization and death in Maine is under age four – the ages for which safety seats are legally required and for which there is primary enforcement of safety restraints in Maine.

HIGHLIGHTS OF MAINE'S PASSENGER SAFETY LAWS (As of 1/1/03)

All people riding in a vehicle must be properly restrained. Enforcement is primary for those under 18 years of age and secondary for those over 18. Secondary enforcement means that generally, the vehicle can only be pulled over if another violation appears to exist.

Children less than 18 years of age but more than 8 years of age or taller than 4'7" must be properly secured in a seat belt, unless they are required to be in a federally approved child restraint system such as a booster seat.

Children less than 12 years of age and under 100 pounds must sit in the rear seat when possible.

Children less than 8 years of age and under 80 pounds but over 40 pounds must be restrained in a federally approved child restraint system such as a booster seat.

Children under 40 pounds must be restrained in a child safety seat.

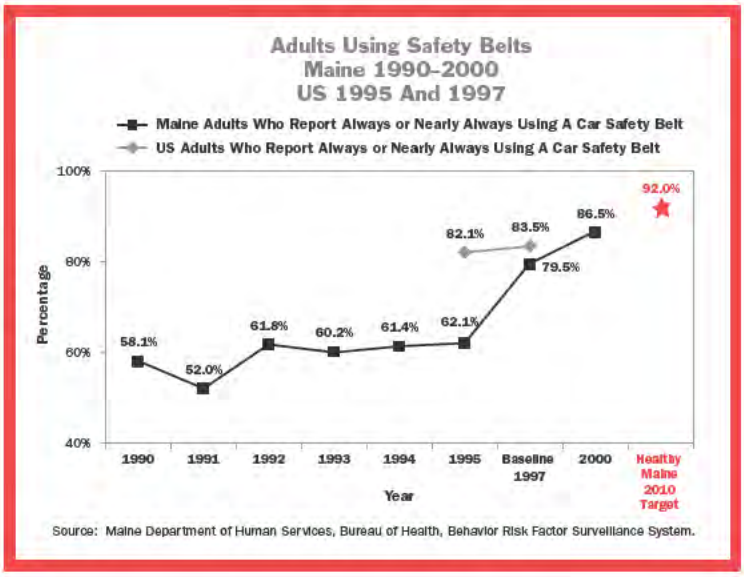
People and dogs riding in the back of trucks must be restrained.

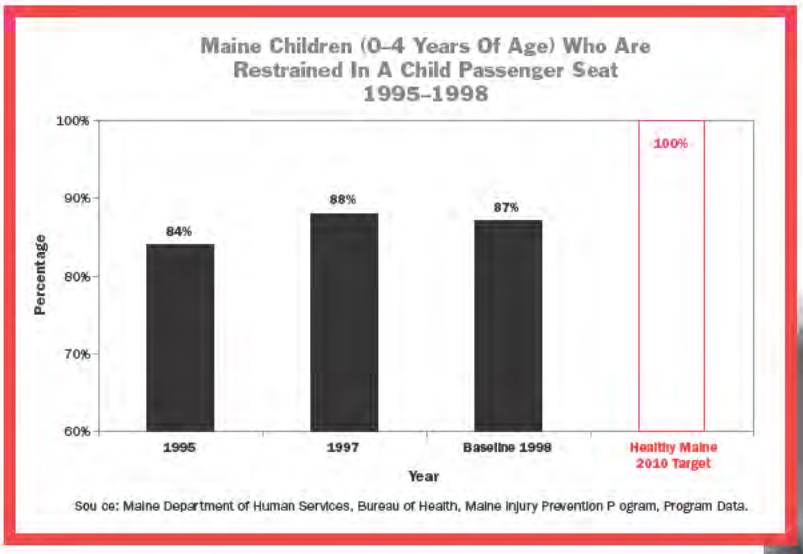
Although an estimated 87% of Maine children under four are placed in a child car safety seat, it is estimated that close to 100% of them are not properly restrained; i.e., the safety seats are not properly installed or the child is not properly placed in them. The availability of safety seat checks in many more communities in Maine will aid in addressing this problem.

Booster seat usage is much less, about 8% of children ages 4–8 according to Maine data. Usage should increase, however, as the result of the 2002 passage of a bill requiring their use for children 40–80 pounds starting in January 2003. Because lap and shoulder belts are made for an average body of 5'10" and 165 pounds, a child under 80 pounds or less than about 4'9" (generally ages 4–8) is too small for the adult lap and shoulder belts, and often will sustain serious head, neck, or abdominal injuries in car crashes. With increased booster seat use, the vast majority of the 23 Maine children in this age group who sustain serious injuries and the two who are killed each year should be saved from these fates.

- **15–19 Increase the use of safety belts.**

  Healthy Maine 2010 Baseline: 79.5%
  Healthy Maine 2010 Target: 92%





- **15–20 Increase the use of child restraints.**

  Healthy Maine 2010 Baseline: 87%
  Healthy Maine 2010 Target: 100%

  In future years, it is hoped that this objective will be routinely measured for children from birth to eight years of age.

GRADUATED DRIVER'S LICENSE

Motor vehicle crashes kill more teenagers than any other cause in Maine and across the country. New teen drivers in Maine are four times more likely to die in a crash than adults. Young drivers comprise 12.5% of all drivers, but suffer 25% of all fatalities and 30% of all injuries.

One initiative that has worked to reduce these grim statistics is the implementation of a Graduated Driver's License (GDL) for youth drivers. For instance, Michigan and North Carolina saw declines of 25% and 27% respectively in motor vehicle crashes involving 16-year-old drivers from 1996 to 1999 after a GDL was implemented in 1997. North Carolina saw a 57% decline in fatal crashes during the same time period.

Thirty-seven states have now implemented a three-tier GDL. Maine implemented a modified version of a GDL in 1998 and includes the following in its three-tiered approach:

- **Instruction Permit:** An instruction permit is issued to a person 15 years of age or older and who has completed a driver education course (if under 18 years). The permit is valid for 18 months.
- **Provisional License:** The first license issued to a new applicant under 21 years of age is provisional for two years.
  - If convicted of a moving violation with a provisional license, the license will be suspended for 60 days. Second and third offenses carry more severe penalties.
  - If the licensee is less than 18 years, the driver is prohibited from carrying passengers other than immediate family members for a period of 90 days, unless accompanied by another licensed driver who is at least 20 years of age and has held a valid license for the past 2 years.
  - All drivers under the age of 21 years with any blood alcohol level will have their license revoked for one year, and an additional 6 months if there are any passengers under the age of 21.
- **Regular Driver's License:** A driver can be issued a regular driver's license if he or she is under 21 years of age and has had a provisional license for a period of 2 years.

Some states also require that drivers with the provisional license who are under 18 be supervised by a licensed adult age 21 or older when driving between 10 PM and 5 AM. Some new studies also suggest it may be safer for all drivers under age 18 to not be allowed to carry other youth for an extended period of time.

FALLS

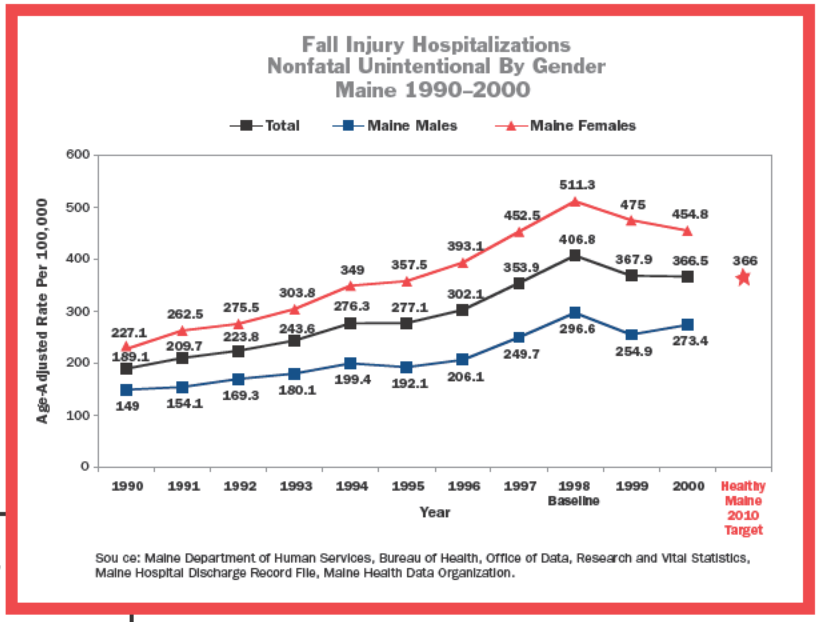
Nearly 5000 Maine people every year are hospitalized as a result of a fall. Almost three-quarters of these hospitalizations occur among people over the age of 65. Falls are the leading cause of injury deaths and one of the leading causes of hospitalizations for people over age 65 in Maine, as well as across the country. Between 1994 and 1998, 169 Maine people over the age of 65 died as a direct result of a fall. Hip fractures are the most common serious injury as a result of falls in this group. The impact of these injuries on the quality of life of our seniors is enormous.

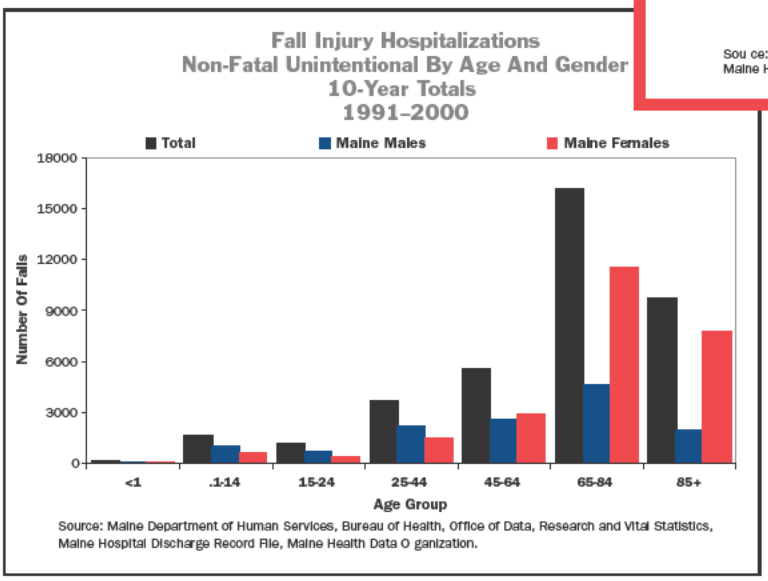
There are many factors that are modifiable that contribute to falls among people over 65. Among them are: difficulties in gait and balance, neurological and musculoskeletal disabilities, use of psychoactive medications, visual impairment, slippery surfaces, uneven floors, poor lighting, loose rugs, unstable furniture, unstable grab bars in bathrooms, and objects on the floor. With regular exercise, including those to improve balance, as well as some simple home improvements, many of these devastating falls can be prevented.

Falls are also the leading cause of injury hospitalization for children and teens. These types of falls include falling from playground equipment, trees, and stairs. Although injuries from playground falls are often preventable by making sure the playground surface is safe, many are still found on grass or dirt surfaces rather than wood chip and other safer surfaces.

- **Reduce hospitalizations from falls.**

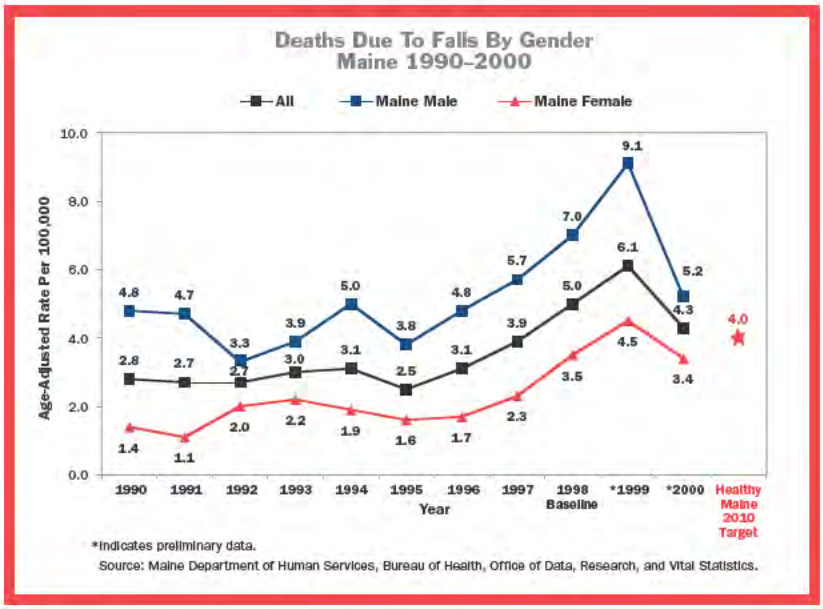
  Healthy Maine 2010 Baseline: 406.8
  Healthy Maine 2010 Target: 366

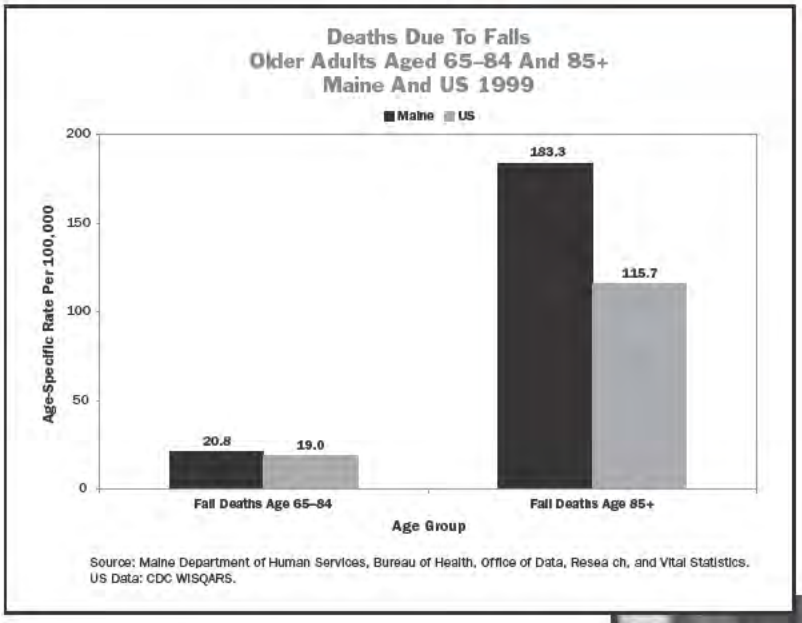




- **15–27 Reduce deaths from falls.**

  Healthy Maine 2010 Baseline: 5.0
  Healthy Maine 2010 Target: 4.0



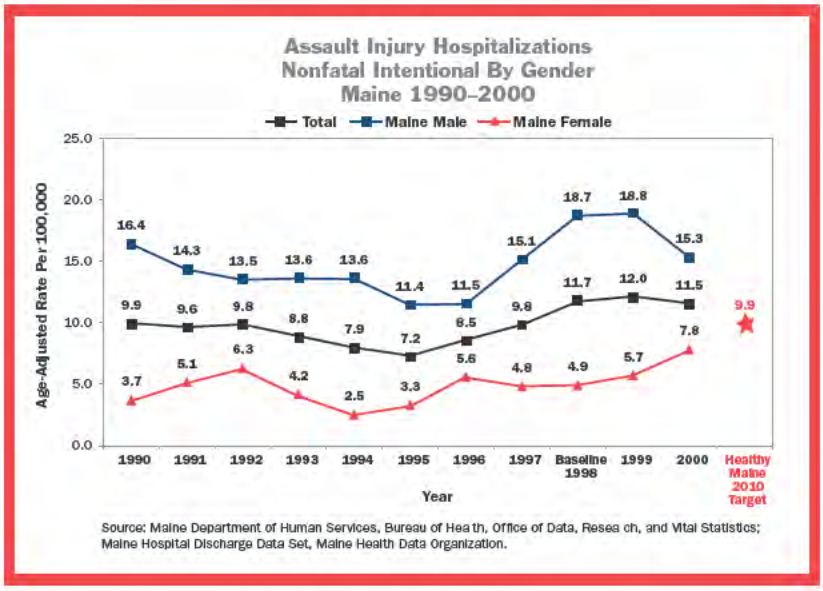


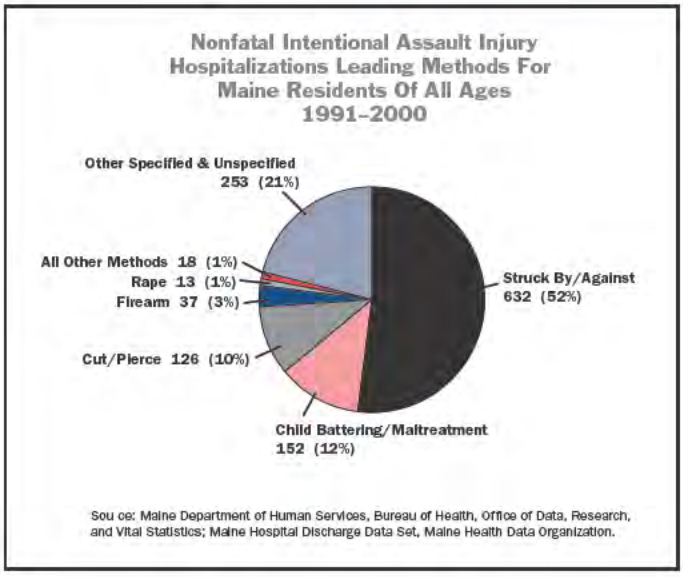
Intentional Injuries

Intentional injuries are those that result from purposeful human action intended to cause harm directed to self or others. They account for one-third of all injury deaths. The most common intentional injuries are: suicide, homicide, self-injurious behavior, and assault such as physical and sexual assault, domestic violence, and bullying.

- **15–37 Reduce physical assaults.**

  Healthy Maine 2010 Baseline: 11.7
  Healthy Maine 2010 Target: 9.9

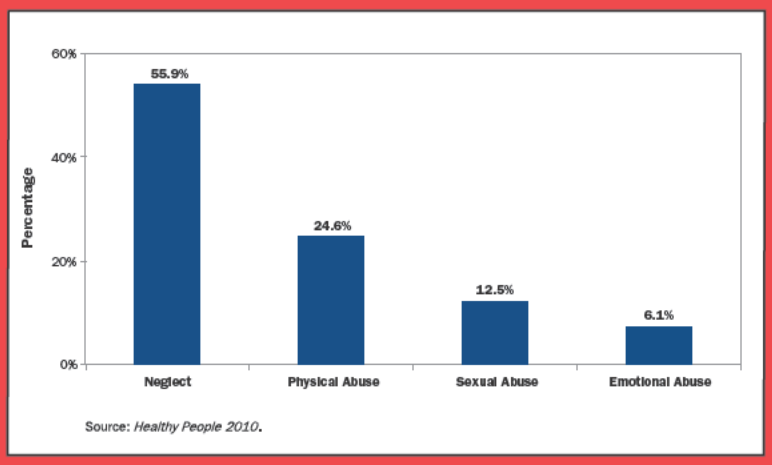




DOMESTIC VIOLENCE

Physical and sexual assault, in the forms of domestic violence, child abuse, elder abuse, sexual assault, and sexual abuse pose serious public health and safety threats throughout our society. We all are affected to some degree by these violent behaviors, since no one is completely protected from them.

Types Of Child Maltreatment Reported Nationally



Source: *Healthy People 2010*.

About one million children every year are reported in the US to be victims of maltreatment. Based on data from 39 states of reported child abuse, about 75% of the perpetrators are the victim's parents. Most of the remainder are either relatives or caregivers.

The effects of child abuse can last a lifetime, so implementing effective prevention and treatment strategies are critical. Some long-term studies on home visitation programs for families at risk have shown potential for preventing child abuse and neglect. Since 1996, Maine has funded and recently expanded these types of programs.

Sexual assault is one of the most under-reported crimes, especially among children. Only about 15% of sexual assault victims report the crime to the police. Nationally, surveys show that one in four girls and one in seven boys will be sexually victimized before their 18th birthday; and one in three women and one in five men will be sexually victimized in their lifetime.

In 1985, violence occurred among at least 16% of US heterosexual couples. Recently, there has been increased recognition of physical and sexual violence during pregnancy. Research shows that up to about 20% of women during pregnancy experience intimate partner violence. Additionally, there has been increased recognition of teen intimate partner violence.

Males who are physically violent toward their partners are more likely to be sexually violent toward them and are more likely to use violence toward children. The perpetration of intimate partner violence is most common in adults, who as children witnessed intimate partner violence or became the targets of violence from their caregivers.

The consequences of sexual and physical assault are long-range, and include suicide and other forms of self-inflicted injury, substance abuse, delinquency, violent behavior, and health problems such as phobias and eating disorders.

There has also been increased awareness of elder abuse, abuse of those who are disabled, are a sexual minority, or a racial or ethnic minority. It is hoped that our abilities to measure abuse of these populations will improve.

Approaches to reducing domestic violence, child abuse, elder abuse, and sexual assault need to be multi-faceted, including improving reporting of these crimes, enforcement of laws against perpetrators (especially since recidivism is so common), treatment of victims, prevention strategies aimed at those at risk and the general population. However, because of the perceived private nature of physical and sexual assault, this important public health and safety problem is difficult to study. Consequently, we have much to learn about effective strategies to prevent domestic violence, and treat victims and perpetrators.

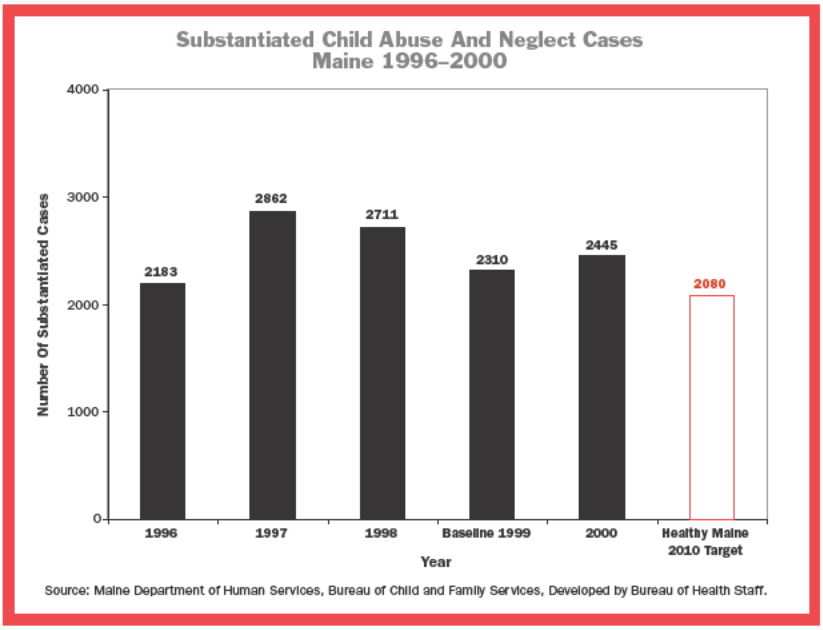
- **15–34 Reduce the rate of physical assault by current or former intimate partners.**

Maine's Domestic Assaults With Physical Injuries 1996–2000												
	1996		1997		Baseline 1998		1999		2000		Healthy Maine 2010 Target	
	Number	Rate/ 1,000	Number	Rate/ 1,000	Number	Rate/ 1,000	Number	Rate/ 1,000	Number	Rate/ 1,000	Number	Rate/ 1,000
Total Assaults	3,914	3.15	4,222	3.39	**3,855**	**3.09**	3,986	3.18	4,486	3.52	**3,469**	**2.78**
Male Assaults on Females	2,550	4.47	2,690	2.16	**2,338**	**1.87**	2,336	1.86	2,656	2.08	**2,104**	**1.68**
Female Assaults on Males	411	0.33	463	0.37	**441**	**0.35**	505	0.40	535	0.42	**397**	**0.32**
Parent Assaults on Child	266	0.21	298	0.24	**230**	**0.18**	261	0.21	341	0.27	**207**	**0.16**
Child Assault on Parent	251	0.20	269	0.22	**213**	**0.17**	224	0.18	310	0.24	**192**	**0.15**
All Other Familial Assaults	436	0.35	502	0.40	**633**	**0.51**	660	0.53	644	0.51	**570**	**0.46**

Source: Maine Department of Public Safety, Developed by Bureau of Health Staff.
Rates based on Maine population for all ages.

- **15–33 Reduce child abuse and neglect.**

  Healthy Maine 2010 Baseline: 2310
  Healthy Maine 2010 Target: 2080



Source: Maine Department of Human Services, Bureau of Child and Family Services, Developed by Bureau of Health Staff.

- **15–35 Reduce the annual rate of rape or attempted rape.**

Reported Rape And Attempted Rapes 1996–2000												
	1996		1997		1998		Baseline 1999		2000		Healthy Maine 2010 Target	
	Number	Rate/ 1,000	Number	Rate/ 1,000	Number	Rate/ 1,000	Number	Rate/ 1,000	Number	Rate/ 1,000	Number	Rate/ 1,000
Total Rapes	266	0.21	254	0.20	229	0.18	**273**	**0.22**	318	0.25	**195**	**0.15**
Forcible Rapes	238	0.19	234	0.19	208	0.17	**245**	**0.20**	291	0.23	**177**	**0.14**
Attempted Rapes	28	0.02	20	0.02	21	0.02	**28**	**0.02**	27	0.02	**18**	**0.02**

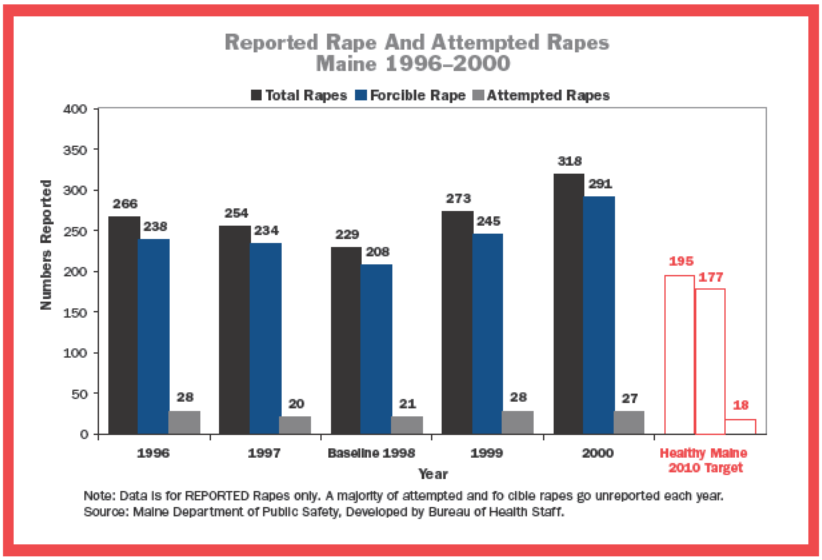
Source: Maine Department of Public Safety, Developed by Bureau of Health Staff.
Rates based on Maine population for all ages.

15–35a Maine reported rape and attempted rapes 1996–2000.

Total Rapes
Healthy Maine 2010 Baseline: 229
Healthy Maine 2010 Target: 195

Forcible Rapes
Healthy Maine 2010 Baseline: 208
Healthy Maine 2010 Target: 177

Attempted Rapes
Healthy Maine 2010 Baseline: 21
Healthy Maine 2010 Target: 18



Note: Data is for REPORTED Rapes only. A majority of attempted and forcible rapes go unreported each year.
Source: Maine Department of Public Safety, Developed by Bureau of Health Staff.

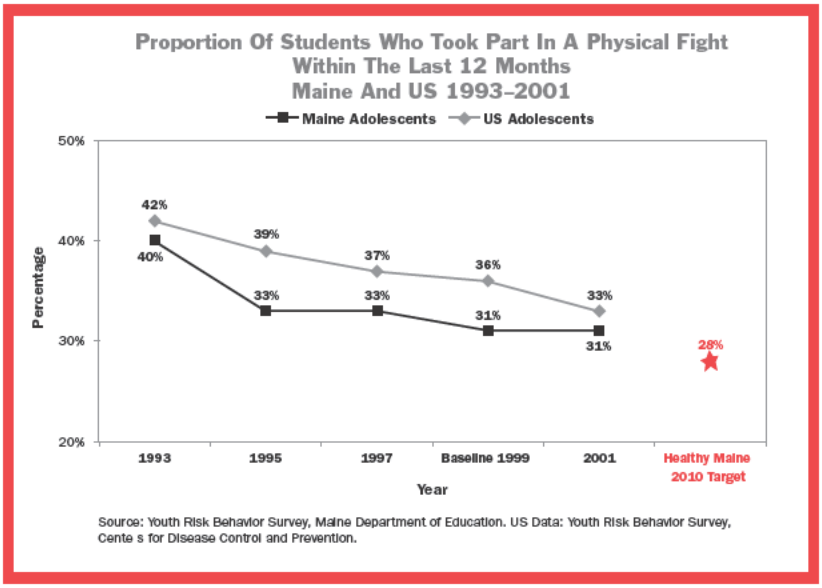
BULLYING/HARASSMENT IN SCHOOLS

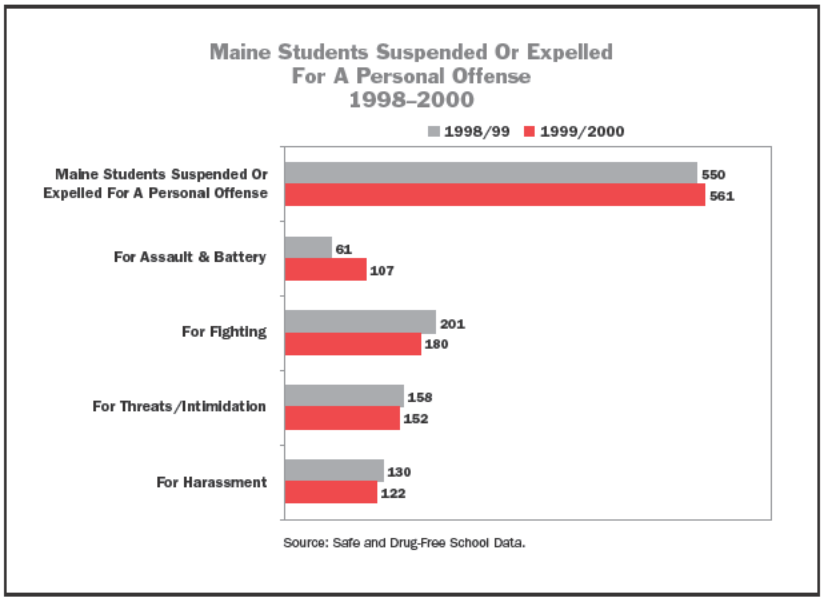
Although the roots of violence are multifaceted, exposure to violence is a common precursor to violent behavior. Exposure to violence happens in many settings – through the media, home life, and school life. Therefore, strategies to reduce exposure must involve many settings. However, since most children spend most of their waking hours in schools, this is a particularly critical setting.

Recent Youth Risk Behavior Surveys of Maine high school students show a significant exposure to violence. Forty percent (40%) of male and 24% of female youth report being in a physical fight within the past year. Additionally, 22% of students report carrying a weapon, and 7% report carrying a gun at least once during the previous month. During the 1998–1999 school year, Maine schools reported 650 personal and weapons-related offenses that were serious enough to remove a child from school.

- **15–38 Reduce physical fighting among adolescents.**

  Healthy Maine 2010 Baseline: 31%
  Healthy Maine 2010 Target: 28%



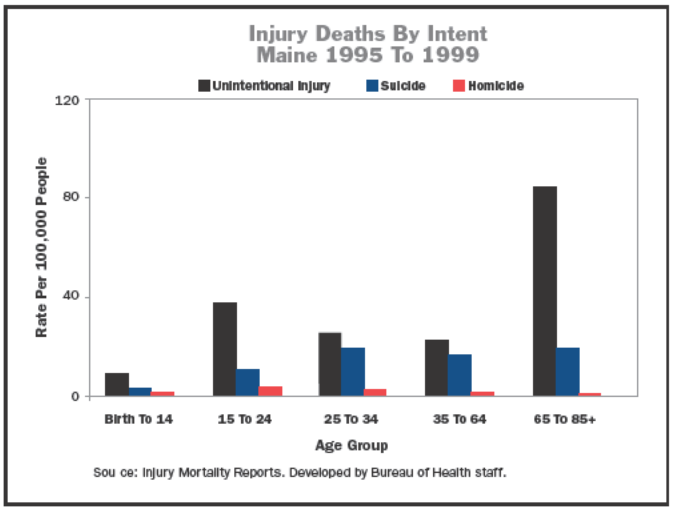


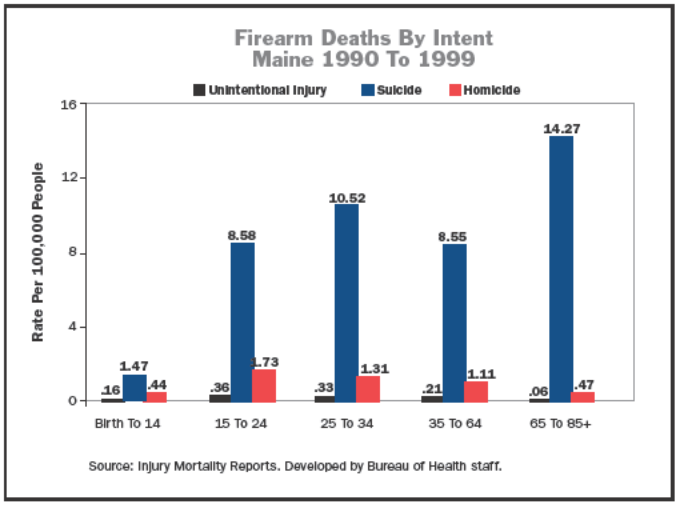
Number Of Students Removed From School For Personal Offenses									
Academic Year	Elementary			Middle School			High School		
	Personal Offenses	Weapon Related	Other Criminal Acts	Personal Offenses	Weapon Related	Other Criminal Acts	Personal Offenses	Weapon Related	Other Criminal Acts
1998–1999	47	18	6	227	33	17	276	49	13
1999–2000	228	16	11	125	79	14	209	74	34

Source: Maine Safe and Drug-Free School Survey, Developed by Bureau of Health Staff.

SUICIDE

About 50% more people die from homicide than suicide nationwide, although in Maine there is a much higher proportion of people dying from suicide than homicide. There are about 170 suicides annually in Maine – on average one person every two days – although available statistics are probably underestimated because of the stigma associated with taking one's own life. Six out of ten Maine suicides are completed with a firearm. It is not known exactly how many suicide attempts there are in Maine very year, but we do know that there are about 900 hospitalizations every year for self-inflicted injuries and about 1,200 emergency medical services responses to suicidal individuals every year. Hospitalization rates are highest among adolescents and young adults.





Suicide rates are the highest among those over age 65 both in Maine and the nation, and even higher among those over age 80. Depression (which tends to be underdiagnosed and undertreated), social isolation, and chronic physical illness are all factors associated with suicide in the elderly.

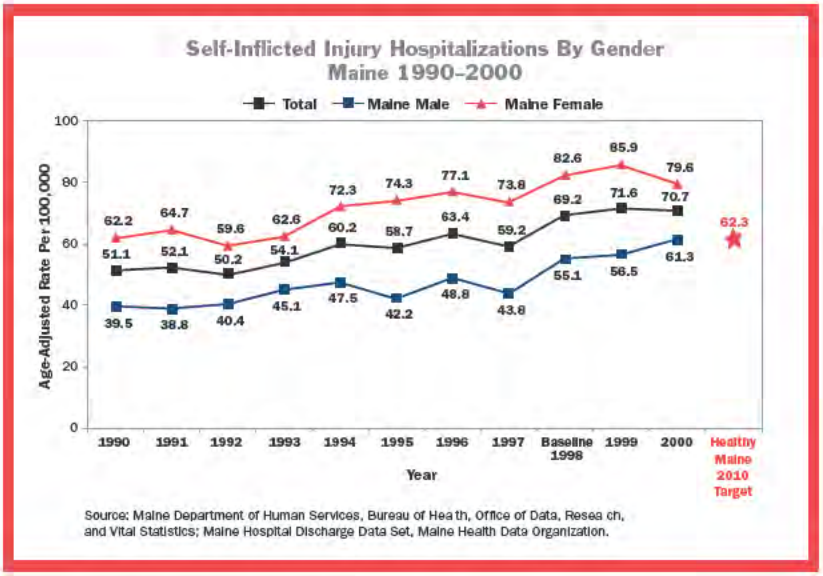
Suicide is the second leading cause of death among Maine people ages 15–34 – only motor vehicle crashes take more teen and young adult lives than suicide in Maine. Our youth suicide rates have consistently been higher than the national average, though both State and national rates have fallen in the past several years. There is no typical profile of a suicidal youth; suicide is the usually the result of a complex set of circumstances. Risk factors for suicide among youth include: history of prior suicide attempts, depression, conduct disorder, substance abuse, social isolation, sexual minority status, and history of physical or sexual abuse.

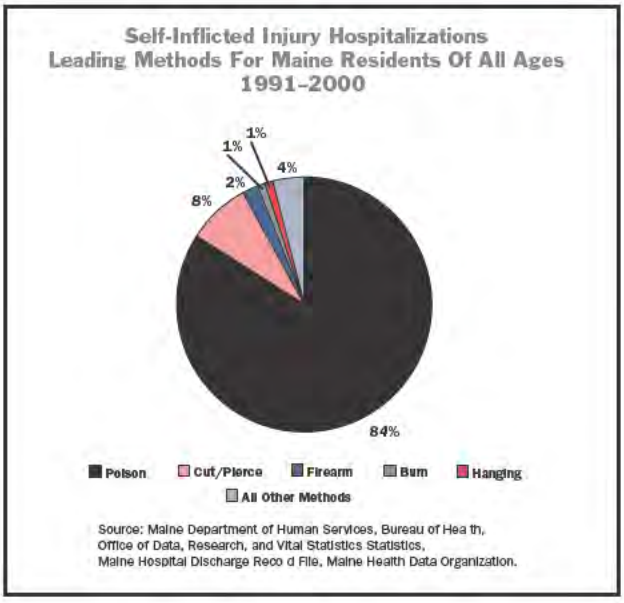
Nationally, 90% of those adults who complete suicide have a diagnosed mental illness. Clearly, early identification and treatment of mental illness are strategies to effectively reduce suicide (see Mental Health chapter).

- **18–2 Reduce suicide attempts.**

  Healthy Maine 2010 Baseline: 69.2
  Healthy Maine 2010 Target: 62.3

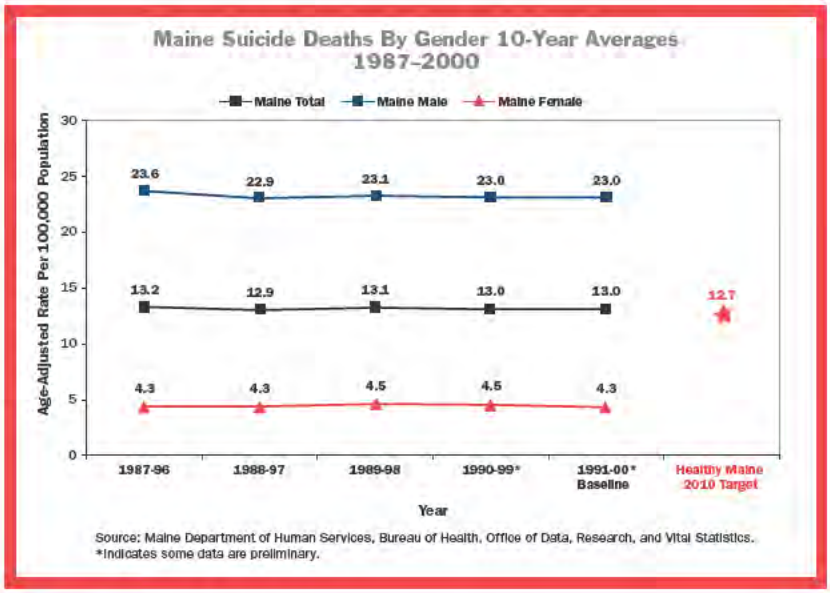
  This objective is measured in Maine by self-inflicted injury hospitalization rates. Not all suicide attempts result in a hospitalization, and not all self-inflicted injuries are necessarily a suicide attempt.

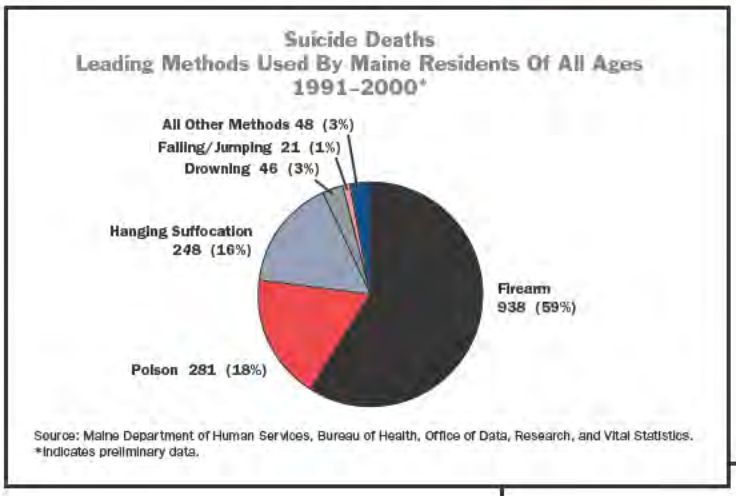


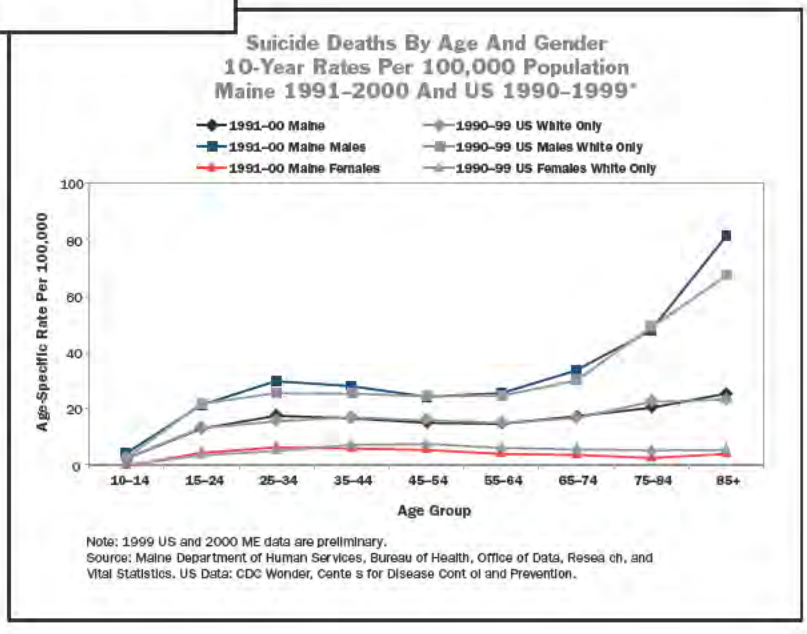


- **18–1 Reduce the suicide rate.**

  Healthy Maine 2010 Baseline: 13.0
  Healthy Maine 2010 Target: 12.7







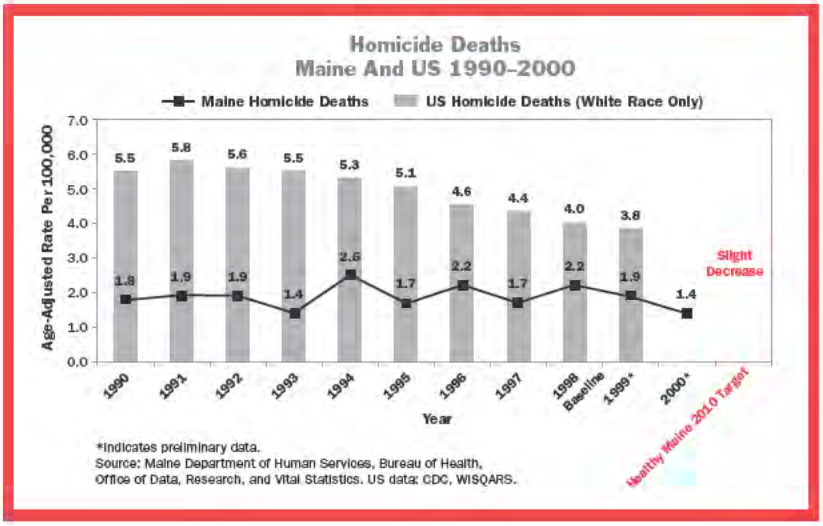
HOMICIDE

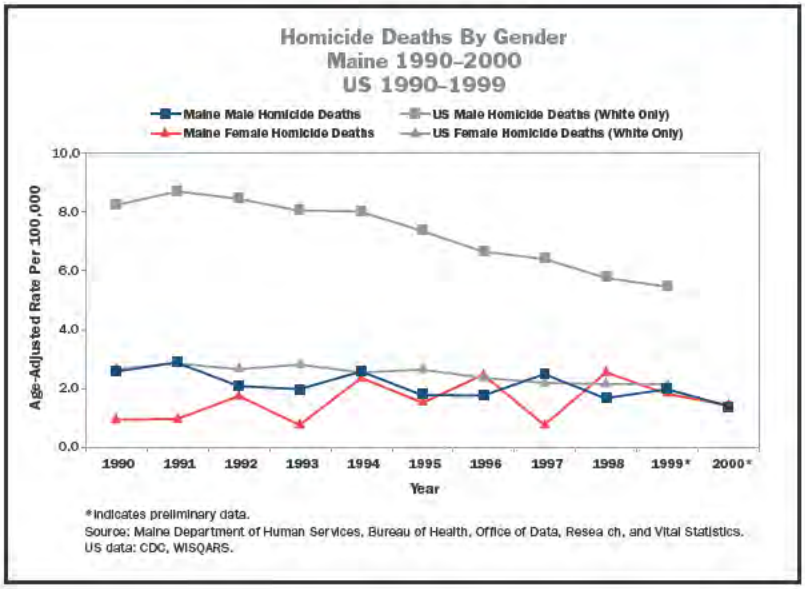
Although Maine's homicide rate averages much lower than the national rate, we still have a rate that is many times higher than most developed countries such as Canada and European countries. In addition, about half of all homicides in Maine are related to domestic violence. About 85% of women across the US who are murdered, are murdered by someone they knew.

Nationally, homicide is the second leading cause of death for young persons aged 15 to 24, and the leading cause of death for African Americans in this age group. Homicide rates are dropping among all groups, but the decreases are not as dramatic among youth, who already exhibit the highest rates. The national homicide rates among males aged 15 to 24 years are 10 times higher than in Canada, 15 times higher than in Australia, and 28 times higher than in France or Germany.

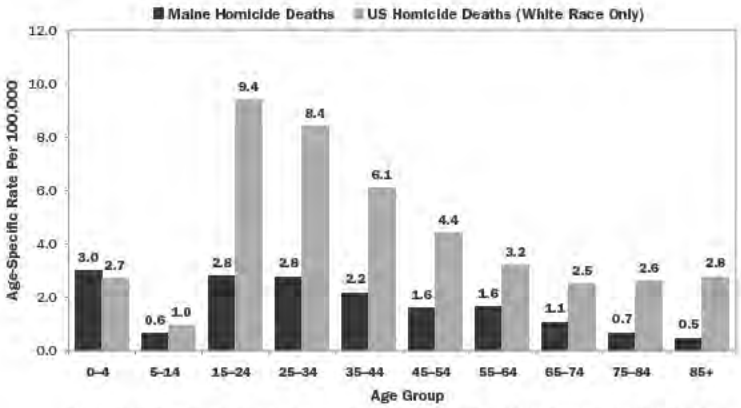
- **15-32 Reduce homicides.**

  Healthy Maine 2010 Baseline: 2.2
  Healthy Maine 2010 Target: Slight decrease in homicide rate



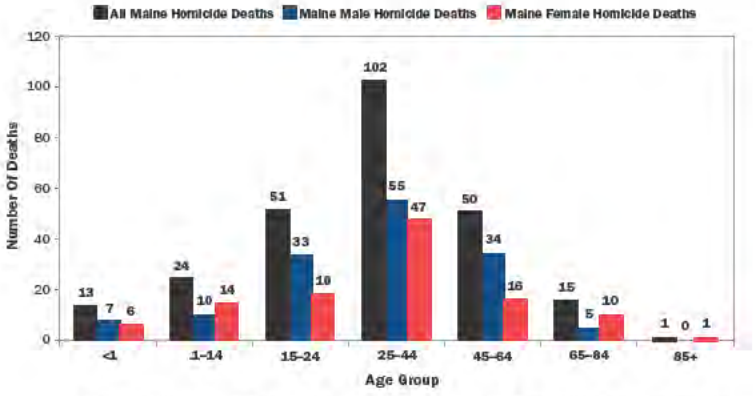


Homicide Deaths By Age
Maine 1991-2000
US 1990-1999



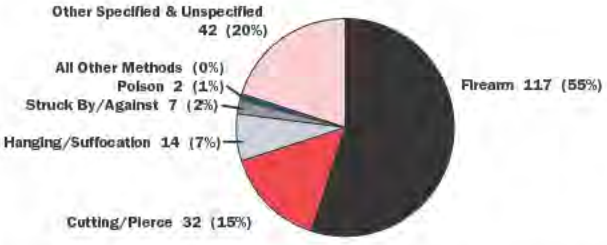
Source: Maine Department of Human Services, Bureau of Health, Office of Data, Research, and Vital Statistics.
US data: CDC, WISQARS.
1999 US and 2000 ME data are preliminary.

Maine Homicide Deaths
10-Year Totals By Age And Gender
1991-2000



Source: Maine Department of Human Services, Bureau of Health, Office of Data, Research, and Vital Statistics.
2000 data are preliminary.

Homicides
Leading Methods Of Assault
Maine 1991-2000



Source: Maine Department of Human Services, Bureau of Health, Office of Data, Research, and Vital Statistics.

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** Members who attended half-day Healthy Maine 2010 Injury Priority Area Work Group meeting.*

Joseph Mayo

Clerk Emeritus of the Maine House of Representatives

Joe Mayo used his personal experience with ALS to advocate for legislation that has resulted in better access to end-of-life care for Maine people.

All Mainers can anticipate better access to end-of-life care thanks in great measure to a selfless and courageous man named Joe Mayo. Mr. Mayo is Clerk Emeritus of the Maine House of Representatives and a former 10-year state representative who, for the past several years, has suffered with amyotrophic lateral sclerosis (ALS, commonly called Lou Gehrig's disease). He fought for passage of landmark legislation to promote death with dignity. The resulting law is Joe Mayo's legacy to our state.

While the disease has confined him to a wheelchair and compromised his ability to speak, it has not destroyed his spirit. He put his energy into fighting for this comprehensive bill requiring private insurers to cover hospice, palliative, and end-of-life care and promoting education about care options for the terminally ill. The bill was "born" in Joe Mayo's home where he hosted the very first meeting. With characteristic determination, he saw the bill through from start to finish. He worked tirelessly to educate his peers at the State House about the bill and was the only terminally ill person to testify before the Banking and Insurance Committee. As a man in his early 40s facing an incurable disease, he made a

resounding impact. He used his experience with ALS to advocate for every citizen who currently does or will ultimately face a terminal illness.

"There are many people in Maine, also enduring a terminal illness, who do not have the wealth of support I do. I appear here for them," Mr. Mayo testified in a statement read by his wife. "We all have an obligation to ensure that those facing terminal illness do so with our comfort and aid. Most importantly, we must help the healthcare community understand what people enduring terminal illness need. With the advances in modern medicine, no one has to die in pain."

When the bill became law in 2001, it was a tremendous victory for Maine. The bill not only makes coverage of hospice care a required insurance benefit, but it makes people eligible for hospice care when they have a life expectancy of twelve months or less (a change from the preexisting six months or less). In addition, the bill increases the State's Medicaid reimbursement rate for hospice care to more accurately reflect the rising costs of drugs and other treatments.

"A portion of this bill addresses the education of medical professionals who are taught to heal and save lives but, for the most part, have very little training in end-of-life care," says Mr. Mayo. The bill has a provision for a State-established center to educate health professionals and the public about support and care for the terminally ill. The Maine Center for End-of-Life Care will serve

as a clearinghouse for information on issues such as pain management and palliative care. The Center will collect and distribute information on services available to the terminally ill and their families, and maintain a registry of medical providers who specialize in end-of-life treatment. The bill commissions studies to track care for the terminally ill, assess educational requirements related to end-of-life care for licensed healthcare professionals, and overcome barriers to the establishment of inpatient hospice programs in Maine. It also provides funding to support volunteer hospice programs.

"A portion of this bill addresses the education of medical professionals who are taught to heal and save lives but, for the most part, have very little training in end-of-life care," says Mr. Mayo.

Though many supporters share the victory of the bill, Joe Mayo is seen as the catalyst. In recognition of his contributions, he received the Advocate of the Year Award from Maine's Home Care Community, and the Maine Hospice Council created an award in his honor. The first recipient of the Joe Mayo Award was Representative David Madore, primary sponsor of the bill.

Mr. Mayo says his love for his family and his work at the State House are what keep him going. He vows that he will continue this work just as long as he is able. When he and his doctor feel the time is right, Joe Mayo plans on using hospice care. He says, "I want to die with dignity at home. Doctors and nurses can prolong my death for a day or so but what does it matter? What does it cost in terms of comfort, peace, and quality of life in its final days?"

Joe died at his home surrounded by his family and friends on May 23, 2002 with loving support from hospice care.

Mental Health

GOAL

Improve mental health and ensure access to appropriate, quality mental health services.

Overview

Mental disorders generate an immense public health burden that is under-recognized. For instance, in the United States, mental illness is on par with heart disease and cancer as a cause of disability.

Affecting persons of all racial and ethnic groups, both genders, and all educational and socioeconomic groups, mental disorders have been called equal opportunity disorders. Although about one in five adolescents and adults through age 64 had a diagnosable mental disorder in any given year; about one in four older adults (over age 64) experience mental disorders such as depression, anxiety, substance abuse, and dementia. Alzheimer's disease alone is one of the leading causes of nursing home placements.

IN MAINE, THERE ARE APPROXIMATELY:

160 psychiatrists – which equals 13 psychiatrists per 100,000 population (13/100,000), compared to 11/100,000 nationally;

230 psychologists – which is 18/100,000, well below the national average of 31; and

4000 social workers – which is 321/100,000, which is above the national average of 216/100,000.

Source: Maine Department of Professional and Financial Regulation.

Maine, like the rest of the nation, is undergoing an evolution in the way mental illnesses are recognized and treated. With the development of numerous medications and other therapies over the past four decades that successfully treat a number of mental illnesses, the locus of intervention for significant mental illness has changed from centralized institutions such as the Augusta Mental Health Institute (AMHI) or the Bangor Mental Health Institute (BMHI) to communities, with only occasional assistance from centralized institutions. We continue to face major challenges in de-stigmatizing mental illness and assuring access to appropriate services at the community level.

PRIMARY
SECONDARY
TERTIARY

Strategies

- **Community-Based and Statewide Initiatives:** Creating supportive environments in which people live, work, play, and attend school. These initiatives assure people live in communities in which mental illness is de-stigmatized and there is availability of meaningful work with a living wage, transportation, good education and job training, and infrastructure such as telephones and internet. In addition, the community of people with mental illness is empowered to advocate for issues that affect them.

- **Screening:** Identifying, and linking to appropriate next steps those who may be at risk for mental illness such as people with histories of trauma (such as physical or sexual abuse), stressful life changes (such as loss of a loved one, divorce, or job loss), and family history of mental illness.

- **Assuring Access to Appropriate Treatment and Recovery Services for Mental Illness:** Assuring availability of appropriate physicians and therapists, community support services, recovery services, services during transition to adulthood, access to health insurance, and parity of mental health insurance coverage and treatment. Critical aspects of these services are those that assure a supportive environment for those with mental illness, including housing, food, meaningful employment, and healthy social contacts.

Mental Health: a state of successful performance of mental function, resulting in productive activities, fulfilling relationships with other people, and the ability to adapt to change and to cope with adversity.

Mental Disorders: health conditions that are characterized by alterations in thinking, mood, or behavior that are associated with distress and/or impaired functioning and spawn a host of human problems that may include disability, pain, or death.

Mental Illness: all diagnosable mental disorders.

Health Disparities

(Populations at risk for mental disorders, based on national data in *Healthy People 2010*)

- **Adolescents and Young Adults** (higher rates of onset of schizophrenia)
- **Elderly** (Those in nursing homes or with concurrent heart disease or hip fractures have higher rates of depression and higher rates of Alzheimer's disease.)
- **People with Disabilities** (higher rates of depression)
- **Women** (higher rates of depression; higher rates of eating disorders in young women)
- **Men** (Elderly white men have a suicide rate six times the national average.)
- **History of physical or sexual abuse** (higher risk for suicide attempts)
- **Sexual orientation minorities** (higher rates of suicide among sexual orientation minority youth and young adults)

Even more than other areas of health and medicine, the mental health field is plagued by disparities in the availability of and access to its services. These disparities are viewed readily through the lenses of racial and cultural diversity, age, and gender. (DHHS, Mental Health: A Report of the Surgeon General, 1999, p. vi.)

THREE COMMON CATEGORIES OF MENTAL DISORDERS:

Schizophrenia: A mental disorder lasting for at least six months, including at least one month with two or more active-phase symptoms. Active phase symptoms include delusions, hallucinations, disorganized speech, grossly disorganized or catatonic behavior, and other symptoms. Schizophrenia is accompanied by marked impairment in social or occupational functioning, but symptoms tend to wax and wane. Increasing numbers of people with schizophrenia are doing well with modern treatments, and recovery is increasingly an achievable goal.

Affective Disorders: Include major depression and manic depressive illness. Major depression is the leading cause of disability among adults in developed nations such as the United States. It is not simply a "blue" mood, but rather a variety of feelings such as despair and loss of interest or pleasure in nearly all things that interfere with one's daily living.

Anxiety Disorders: Include panic disorder, obsessive-compulsive disorder, post-traumatic stress disorder, and phobia. These are the most common mental disorders, affecting as many as 1 in 13 Americans annually.

Objectives

Objective numbers are *Healthy People 2010* objective numbers.

- **18–3 (Developmental) Reduce the proportion of homeless adults who have serious mental illness (SMI).**

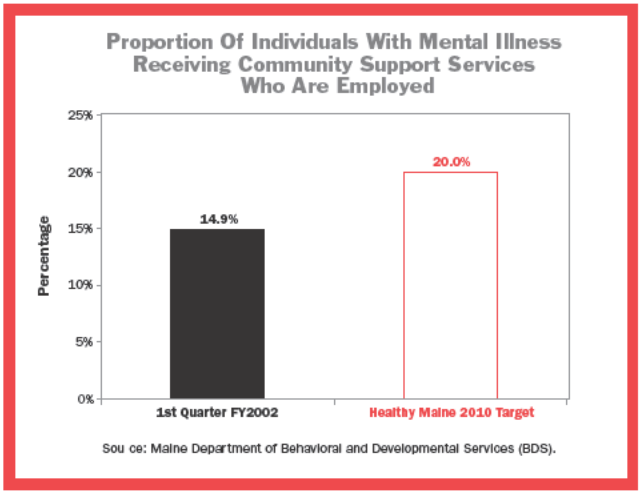
  This objective is also a Maine Department of Behavioral and Developmental Services (BDS) major indicator. No data is currently available. BDS will develop a methodology to collect homeless status information for individuals served by the Department as a requirement of the newly received Federal Infrastructure Development Grant. Measuring this objective should be achievable over the next few months.

  Approximately one-quarter of homeless persons in the US have a serious mental illness. Effective strategies to reduce homelessness among those with SMI include connecting them to mainstream treatment systems as well as case management that helps assure housing, skill-building, and employment.

- **18–4 Increase the proportion of persons with serious mental illness who are employed.**

  Healthy Maine 2010 Baseline: 14.9%
  Healthy Maine 2010 Target: 20%

  BDS currently collects employment data as a performance indicator within community support services (CSS) delivered to Maine people with mental illness. For the first quarter of FY02, an average of 14.9% of individuals receiving CSS were employed. The Department's target is 20%. Also, employment data is part of the above-referenced Federal Infrastructure Grant and indicators will be developed or revised, allowing BDS to capture information on a larger sample of adult mental health consumers. This may allow BDS to revise the 20% target.



  Creating a stable and supportive environment for people with a serious mental illness is an important goal to improve outcomes. Assuring a consistent home and meaningful employment are two specific strategies to achieve this goal. Studies consistently show that most people with mental illness want to work and that meaningful employment improves their overall life satisfaction. Employment provides some independence that the paycheck gives, as well as workplace companionship and improved self-esteem.

  Nationally, an estimated 43% of adults with a serious mental illness were employed in 1994. In Maine, data is currently collected on employment status of those who receive community support services. Therefore, the *Healthy Maine 2010* objective is measured using this data source.

- **18–5 (Developmental) Reduce the relapse rates of persons with eating disorders, including anorexia nervosa and bulimia nervosa.**

  Anorexia nervosa is the most severe eating disorder, characterized by extreme, and often life-threatening, weight loss associated with a distorted body image and a pathological fear of gaining weight.

  Bulimia nervosa is an eating disorder that involves eating a lot of food (binge eating) and then eliminating it (purging), whether through self-induced vomiting or through the use of diuretics or other medications.

  Although relatively effective short-term treatments for both of these serious mental illnesses exist, relapse is very common. For anorexia nervosa, 30–50% of those treated successfully in the hospital relapse within one year. For bulimia nervosa, about half relapse within nine months after initially successful treatment.

Employment and Access to Crisis Services Characteristics of Class Members in Maine

Class members are all persons who, on or after January 1, 1988, were admitted to the Augusta Mental Health Institute (AMHI) and all persons who will be admitted to AMHI in the future until the Maine Department of Behavioral and Developmental Services is found in compliance with a Maine Superior Court Consent Decree. Non-class members are those individuals who may have received inpatient/hospital level of care, but not at AMHI during the time frames noted.

Proportion Of Employed Class And Non-Class Members By Types Of Employment Fiscal Year 2000

Source: Maine Department of Behavioral and Developmental Services, Regional Vocational Services Data.

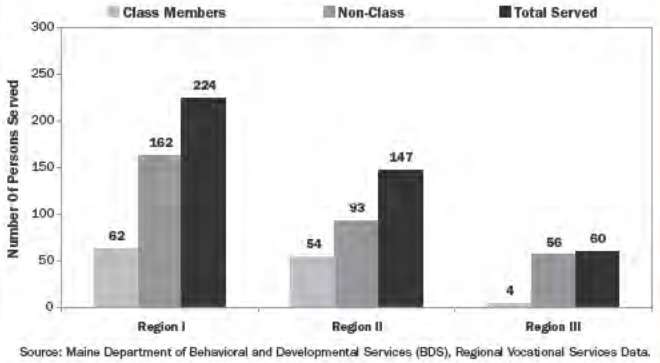
Occupational Categories Of Employed Class Members Proportion Employed Per Category Fiscal Year 2000

Source: Maine Department of Behavioral and Developmental Services. BDS Regional Vocational Database, FY 2000.

Number Of Hours Worked Per Month By Class And Non-Class Members Fiscal Year 2000

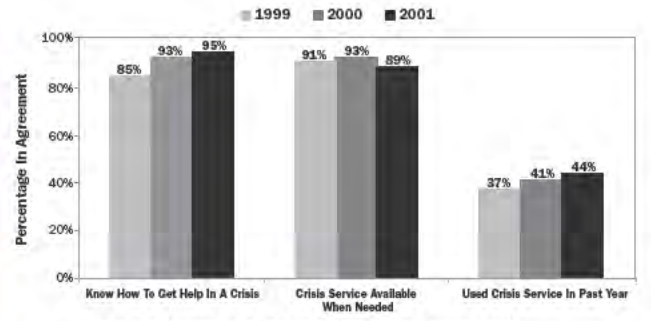
Source: Maine Department of Behavioral and Developmental Services (BDS), Regional Vocational Services Data.

Utilization Of Regional Vocational Services Provided By Maine Department Of Behavioral And Developmental Services Fiscal Year 2000



Source: Maine Department of Behavioral and Developmental Services (BDS), Regional Vocational Services Data.

Mental Health Crisis Services Annual Class Member Survey 1999-2001



Source: Maine Department of Behavioral and Developmental Services (BDS), Annual Class Member Survey: 1999, 2000, and 2001.
Note: Sample sizes for the 1999, 2000, and 2001 Community Class Member Surveys are N = 59, N = 98, and N = 82, respectively.

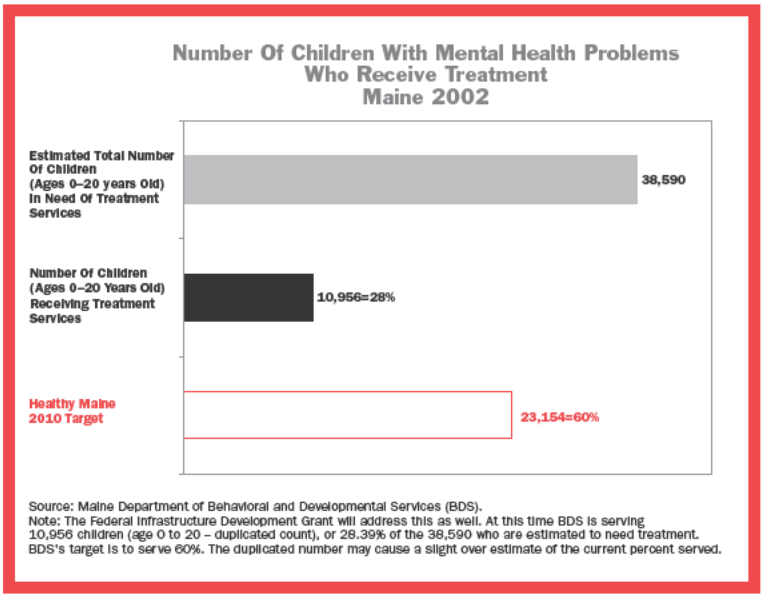
- **18–6 (Developmental) Increase the proportion of persons seen in primary health care settings who receive mental health screening and assessment.**

  The general medical sector is often the initial point of contact for many adults with mental disorders and, for some, these providers may be their only source of mental heath services. Close to 6% of the adult US population use the general medical sector for mental health care, with an average of about four mental health visits per year – far lower than the average of 14 visits per year found in the specialty medical sector. Therefore, attention to mental state in primary care settings can promote early detection and intervention for mental health problems.

- **18–7 Increase the proportion of children with mental health problems who receive treatment.**

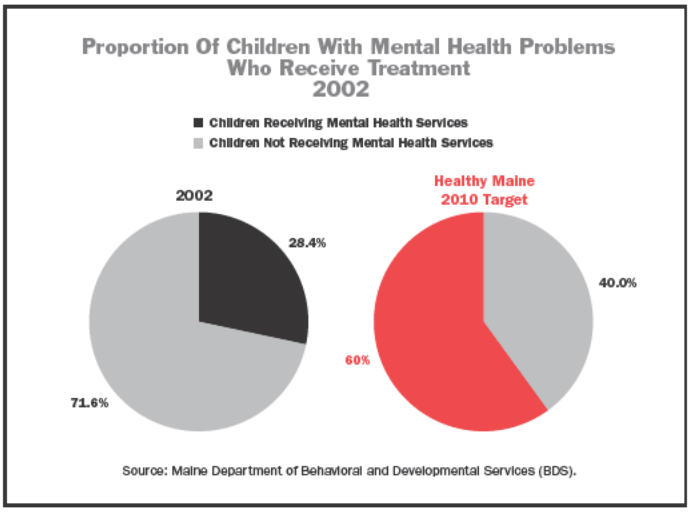
  Healthy Maine 2010 Baseline: 28%
  Healthy Maine 2010 Target: 60%

  For many adults with lifelong mental disorders, these disorders started in childhood. For many of these children, normal development is disrupted by environmental and psychosocial factors which impair their mental health and prevent them from realizing their full potential as adults. Early detection and intervention during childhood of mental disorders or factors leading to mental disorders can result in greater school retention, decreased contact with the juvenile system, improved stability of home life, and improved development.



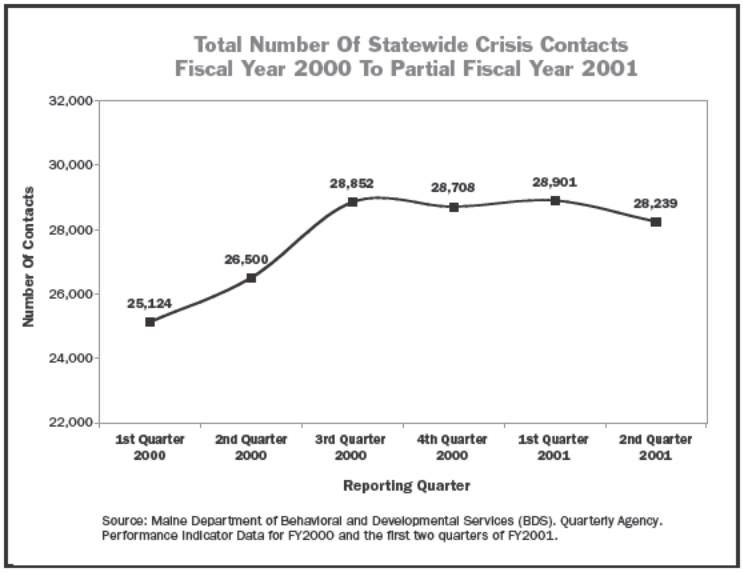
- **18–8 (Developmental) Increase the proportion of juvenile justice facilities that screen new admissions for mental health problems.**

  Although the exact numbers of youth entering the juvenile justice system with mental disorders is unknown nationally as well as in Maine, the proportion is considerably higher than the general population. Not surprisingly, disorders of conduct are common in these facilities. Therefore, identifying those with a treatable mental health problem is critical to assuring that these youth experience improved outcomes.



- **18–9 (Developmental) Increase the proportion of adults with mental disorders who receive treatment.**

Untreated mental illnesses incur vast human and economic costs that can be prevented by treatment. For instance, available medications and psychological treatments can help 80% of those with depression, one of the most commonly diagnosed mental illnesses in the United States. Effective treatments for schizophrenia and anxiety disorders also assist people in returning to normal daily functions such as work and home life.



Source: Maine Department of Behavioral and Developmental Services (BDS). Quarterly Agency. Performance Indicator Data for FY2000 and the first two quarters of FY2001.

National data show an estimated 47% of adults ages 18–55 with a serious mental illness received treatment in 1991; only 23% of adults with depression in 1997; 60% of adults with schizophrenia in 1984; and 38% of adults with anxiety disorders in 1997.

- **18–10 (Developmental) Increase the proportion of persons with co-occurring substance abuse and mental disorders who receive treatment for both disorders.**

Development of measuring this objective will occur through the Federal Infrastructure Grant. When that is in place, the Department, through the use of Medicaid data, will be able to ascertain who is receiving mental health and substance abuse treatment.

About one in five Americans experience a mental disorder in the course of a year, and nearly one in three adults who have a mental disorder in their lifetime also experiences a co-occurring substance abuse (alcohol or illicit drug) disorder. This co-occurrence not only complicates treatment but also changes prognosis, since individuals with co-occurring disorders are more likely to experience a chronic course.

The history of how society is evolving in its ability and willingness to deal with mental health issues is apparent from the evolution of how Federal and State government mental health departments have been formed and named. One example is Maine's own history of its Department:

1939 Maine Department of Institutional Services is created, consisting of the State's institutions for prisoners and the mentally ill.

1981 Department of Corrections is formed as a new department, separating the prisons from the Department.

Maine Department of Mental Health and Mental Retardation is established.

1996 Office of Substance Abuse Services is added to the Department, forming the Maine Department of Mental Health, Mental Retardation, and Substance Abuse Services.

2001 Maine Department of Behavioral and Developmental Services is established as the new name for the Department.

- **18–11 (Developmental) Increase the proportion of local governments with community-based jail diversion programs for adults with serious mental illness.**

  An estimated 7% of the US jail population are individuals with severe mental illness, a higher proportion than the general population. Many of these inmates could be more effectively served by interventions that treat their underlying mental illness. Therefore, if we are to improve our overall mental health, an important and vulnerable population to reach out to with effective strategies to treat mental illness is our inmates.

- **18–12 (Developmental) Increase the number of states that track consumers' satisfaction with the mental health services they receive.**

  Increasingly, the American health care industry is relying on consumer satisfaction to adjust its services. Because mental health services are particularly spread between our market-driven health care industry and government-sponsored services, a coordinated approach to measuring consumer satisfaction with access, appropriateness, quality, and outcome of care is important.

- **18–13 (Developmental) Increase the number of states with an operational mental health plan that addresses cultural competence.**

  The Maine Department of Behavioral and Developmental Services Diversity Team is developing a plan that includes an annual Diversity Conference as well as other activities aimed at promoting awareness of diverse cultures in Maine. The recently completed Multicultural Resource Guide can be accessed via the Department's web site (www.state.me.us/bds/).

  The way people perceive mental health, mental illness, and treatment services affects whether people seek mental health services, how they describe their symptoms, and the outcome of their care. Our cultural background is a major factor that determines our perceptions and, therefore, the way we interact with the mental health care system. Consequently, mental health systems need to be culturally competent.

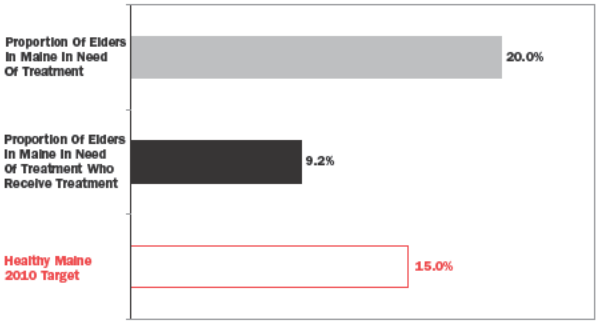
  With this principle in mind, the Maine Department of Behavioral and Developmental Services has made improving cultural competency of the services it provides a high priority and has implemented a number of initiatives to accomplish this.

- **18–14 Increase the number of states with an operational mental health plan that addresses mental health crisis interventions, ongoing screening, and treatment services for elderly persons.**

  Healthy Maine 2010 Baseline: 9.2%
  Healthy Maine 2010 Target: 15%

  With the population of the US aging rapidly, the mental health needs of those over age 65 is growing. Certain mental disorders are particularly prevalent in this population. For instance, mood disorders affect 2–4% of community-living elderly, and older Americans with clinically significant depression symptoms are estimated to be 10–15% of the population. Therefore, our mental health systems must become increasingly engaged in meeting the mental health needs of elders.

Proportion Of Elders (60+ Years) In Need Of Mental Health Treatment And Those Who Receive BDS Services 2001



Source: Maine Department of Behavioral and Developmental Services (BDS). The Maine Department of Behavioral and Developmental Services is currently piloting an assessment protocol for use with elder populations and is awaiting results f om the pilot sites prior to implementation of the protocol in late 2002. BDS Indicator: Percent of elders (60 yea s and older) in need of mental health treatment and who receive BDS Services. Numerator: Number of individuals 60 years and older who received BDS services (Outpatient, Community Support, Residential Treatment, In home Supports, and Crisis Services) in 2001 = 4,398 individuals. Denominator: Population estimate of number of individuals 60 and over who are in need of mental health treatment in Maine. 2000 Census pe sons 60 yea s and over in Maine = 238,099. National estimate of elderly in need of mental health treatment = 20% of individuals 60 years and over (National Health Report of the Surgeon General – Chapter 5: Older Adults and Mental Hea th) Number in Maine in need of mental health treatment = 47,620. Pe cent of total in need who receive treatment = 9.2% for FY2001. Goal for 2010 is to increase service rate to 15%.

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Bonnie	Post	Maine Primary Care Association
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** Members who attended half-day Healthy Maine 2010 Mental Health Priority Area Work Group meeting.*

Occupational Health

GOAL

Promote the health and safety of people at work through prevention and early intervention.

Overview

Occupational health and safety is a major public health issue in Maine for many reasons, including that:

- Maine's occupational injury and illness rates consistently exceed national rates – each month, more than 1,000 Maine people miss work due to workplace injuries or illnesses;
- these health issues impact not only the affected worker and co-workers, but the worker's entire family; and
- most of these illnesses and injuries are very preventable.

The majority of workplace injuries – 60% – come from routine activities such as sitting, standing, reaching, walking, or lifting. And, about one-third of workplace injuries happen the first year a worker is on the job.

There is good news. Maine's work-related illness and injury rates have both declined significantly over the past decade. There are many possible reasons for this decline. It may be in part due to a dramatic change in Maine's industry mix over the past 50 years – from largely goods-producing industries (manufacturing and construction) to mostly service-related industries (trade, health, education). This decline could also be due to changes in the workers' compensation system, more return-to-work programs, or improved safety programs.

In Maine, as well as across the country, there is a great need for improved data and research on occupational health and safety issues, especially that which is focused on finding out which prevention strategies effectively protect workers. Although a number of data sets of reportable injuries and illnesses exist, these are neither comprehensive nor coordinated with one another. As we move forward, we need to improve our ability to monitor emerging hazards in existing industries, as well as emerging industries with different hazards.

PRIMARY

SECONDARY

TERTIARY

Strategies

- **Data and Research:** Improved data and research on occupational health issues can result in improved prevention of occupational injuries and diseases.
- **Worksite Initiatives:** Training, consultation, and other interventions to help create healthy and safe workplaces for all workers, with an emphasis on those places and workers at risk.
- **Initiatives Focused on Injured or Ill Workers:** Investigations of sites with histories of a fatality, injuries, or illnesses by the Maine Department of Labor or the Federal Occupational Safety and Health Administration help implement interventions that will prevent further incidents. Interventions that help the health care community to recognize and treat occupational illnesses and injuries early, such as educational seminars and incorporating occupational questions into routine forms, can result in decreased disease burdens due to workplace issues.

SOME CURRENT STATEWIDE INITIATIVES:

SafetyWorks is an initiative of the Maine Department of the Labor that offers free consultation, training classes, and other resources for Maine employers to assist them in creating safer workplaces. For more information: www.state.me/labor/blsmain.htm or toll-free 1–877–SAFE–345.

The Maine Safety and Health Conference is an annual gathering of employers, employees, and safety and health professionals for the purpose of education and networking. The largest workplace safety and health conference in the State, it is sponsored by the Maine Safety Council, which also offers training programs throughout the year.
For more information: www.Mainesafety.org or 207–854-8441.

Maine Institute for Occupational Health Education is a non-profit organization that offers educational seminars on occupational health topics for health care providers and others concerned about the health risks to Maine's working people.

Safeteen is an initiative of the Maine Department of Labor that offers training materials to help employers make worksites safe for teen workers.
For more information: www.safeteen.org or toll-free 1–877–SAFE–345.

Maine Occupational Research Agenda (MORA) is an initiative to identify occupational health and safety data, and research needs. Members include representatives from the public and private sectors, occupational health and safety professionals, medical professionals, and insurance providers. MORA is modeled after the National Occupational Research Agenda (NORA). Maine is one of only three states to have such an initiative.
For more information: http://www.state.me.us/labor/bls/MORA.htm or 207–624–6400.

Top Five Workplace Illnesses in Maine – 1999:

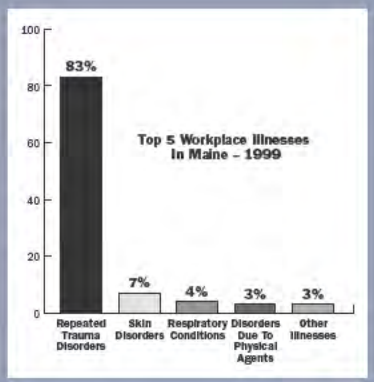
Repeated Trauma Disorders (noise-induced hearing loss, tendonitis, carpal tunnel syndrome, bursitis, etc.)

Skin Disorders (contact dermatitis, eczema, chemical burns or inflammation, etc.)

Respiratory Conditions due to toxic agents (pneumonitis or congestion due to chemicals, dusts, gases, or fumes, farmer's lung, etc.)

Disorders due to physical agents other than toxic materials (heatstroke, sunstroke, freezing, frostbite, effects of radiation, etc.)

Other illnesses such as poisoning, silicosis, asbestosis, infectious hepatitis, cancers, etc.



Health Disparities

(Populations at risk for possible occupational health risks, based on national data in *Healthy People 2010*)

- **Young workers**
- **Older workers**
- **Workers in the agricultural, fishing, and forestry industries**
- **Migrant and seasonal workers**
- **Refugee and immigrant workers**
- **Contract workers and self-employed**
- **Workers new to their jobs**

Little is known about factors such as gender, genetic susceptibility, culture, and literacy that may affect a worker's health and safety.

Objectives

Objective numbers are *Healthy People 2010* objective numbers.

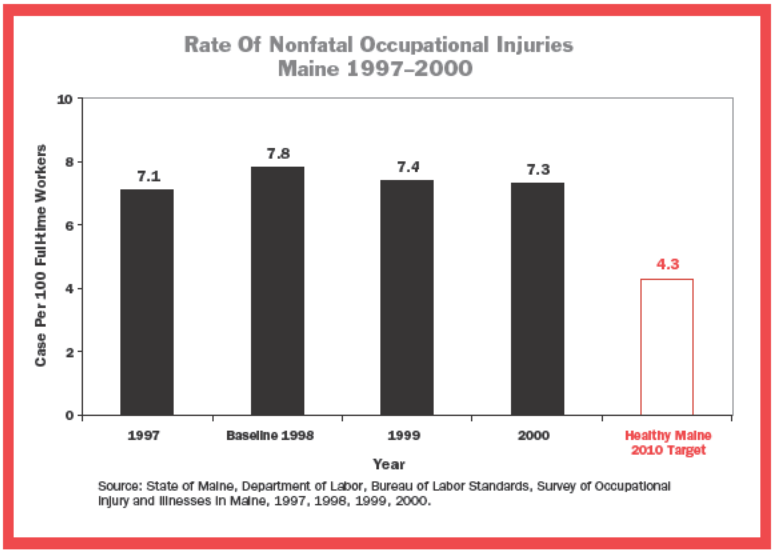
- **(Developmental) Increase the reporting rate under State occupational disease reporting law.**

  Although since 1993 State law has required reporting of certain occupational diseases to the Bureau of Health, reporting appears low; especially since staffing and funding for outreach, collecting, and analyzing data was lost in 2000. Occupational diseases that are reportable include: exposures to heavy metals such as lead and mercury, asbestosis, mesothelioma, and silicosis. After the Occupational Health Program was de-funded, reporting functions were moved to the State Toxicologist in the Environmental Health Unit in the Bureau of Health. Some limited funds have been obtained from NIOSH (National Institute of Occupational Safety and Health) to assist in collecting and analyzing occupational lead exposure. It is hoped that capacity for improving reporting of these diseases will increase so that Maine will have credible data on such diseases and, therefore, be able to effectively reduce workers' chances of contracting them.

- **20-2 Reduce work-related injuries.**

Healthy Maine 2010 Baseline: 7.8
Healthy Maine 2010 Target: 4.3

The rates shown are the private sector industry injury rates which include OSHA reportable cases.



Incidence rates are not available by age group. Frequency of cases is available by age only for injuries involving at least one day away from work.

Age (young and old) is a common risk factor for work-related injury. In 1999, of the 7,316 injury cases in Maine involving days away from work, an estimated 269 or 3.7% involved workers age 15 through 19. An estimated 2,090 or 45% of these cases involved workers 45 years old or older.

All age groups share sprains, strains, and tears as the most common injury type. However, the risk factors for teenage workers – inexperience, lack of training – cause them to be at high risk for work-related injuries. Interventions for teenage workers not only protect them as teens, but give them skills that can help keep them safe throughout their working lives. Risks and effective interventions for older workers need to be researched.

Many other risk factors and effective interventions to address them also need research. Examples include type of industry (such as agriculture, fishing, and forestry), migrant or seasonal worker status, workers new to their jobs, and contract employment status.

THREE MAJOR SOURCES OF OCCUPATIONAL HEALTH DATA IN MAINE:

Workers' Compensation Claims – shows number of injuries and illnesses that result in a workers' compensation claim; is not comparable state to state since reporting requirements vary across the nation; http://www.state.me.us/wcb.

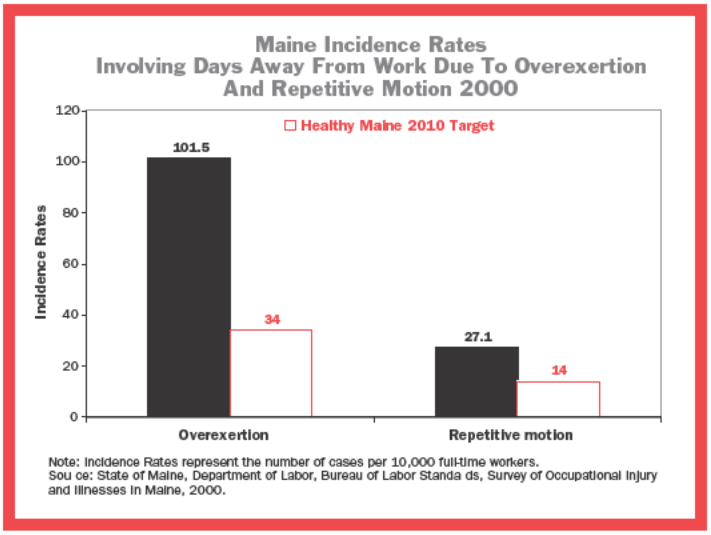
Annual Survey of Occupational Injuries and Illnesses – shows rates of injuries and illnesses; comparable state to state since it is part of a nationwide survey from US Bureau of Labor Statistics; http://www.bls.gov/data/.

Census of Fatal Occupational Injuries – is part of a cooperative Federal/State program, and, therefore, is comparable state to state; http://www.state.me.us.labor/blsmain.htm.

- **20–3 Reduce work-related injuries due to overexertion or repetitive motion.**

Overexertion
Healthy Maine 2010 Baseline: 101.5
Healthy Maine 2010 Target: 34

Repetitive motion
Healthy Maine 2010 Baseline: 27.1
Healthy Maine 2010 Target: 14

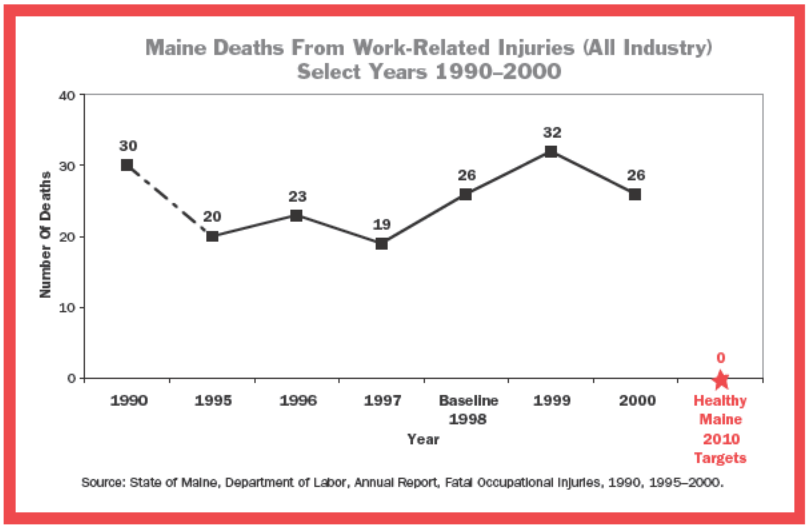


Maine has a particularly high rate of repeated trauma disorders such as carpal tunnel syndrome, tendonitis, ganglionitis, bursitis, and noise-induced hearing loss. Maine has a much higher total rate of these reportable work-related injuries than the nation with a rate of 158 compared to about 30 nationally, per 10,000 full-time workers. This rate has also increased in Maine over the past decade, from a rate of 91 in 1990. In 2000, approximately 5,900 Maine workers were reported to have repeated trauma disorders. These disorders accounted for about 83% of all private sector work-related illnesses in Maine in 1999 and 73% of all public sector work-related illnesses. The *Healthy Maine 2010* objective is measured using rates of cases involving days away from work.

- **20–1 Reduce deaths from work-related injuries.**

Healthy Maine 2010 Baseline: 26
Healthy Maine 2010 Target: 0

Fishermen have the highest rate of work-related fatal injuries in Maine. In 2001, five fishermen died while on the job. For all occupations, transportation accidents (including land, air, and water vehicles) account for more workplace fatalities than any other event. Fatal injuries are more likely to occur among self-employed workers.



OSHA: Occupational Safety and Health Administration, part of the US Department of Labor: the Federal agency that enforces worksite safety issues within the private sector.

Maine Department of Labor: the State agency that enforces workforce safety issues within the public sector. Also provides voluntary non-enforcement assistance in public and private sector workplaces.

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Frances W. "Frannie" Peabody

Frannie Peabody turned personal tragedy into a crusade to reach out to gay men and to benefit people with AIDS.

Photo by: Tonee Harbert/AURORA

Frannie Peabody was born in 1903, but her life as an AIDS activist began in 1983 when her grandson was diagnosed with the disease. At that time AIDS was still considered a marginal disease that only affected people at the fringes of "respectable society." Mrs. Peabody worked passionately to bring AIDS into the mainstream and made us see that this devastating disease can touch any life, as it had touched hers so deeply. She will long be remembered as a founder of the Peabody House hospice and The AIDS Project, dual organizations that now comprise the Portland-based Frannie Peabody Center.

Upon returning to Maine from her grandson's funeral in 1984, Mrs. Peabody turned her grief into action. She recognized that Maine was completely unprepared for the inevitable arrival of the epidemic sweeping the nation. In 1985, she joined a small support group of gay men in the basement of a local church. As an 82-year-old woman, she worried that she might not be welcome, but

she was – with open arms. Together, they started The AIDS Project, an organization providing prevention information, case-management services and advocacy.

Despite the promising development of The AIDS Project, Mrs. Peabody felt compelled to do more. She found that many of the patients she counseled and comforted were ostracized by their families and friends. Even when family members were involved, as was the case with her grandson, she saw how incredibly challenging it was to provide care in the advanced stages of the disease. It became clear that many men and women in the community lacked the emotional and financial resources to be cared for with dignity during the final days of their lives. She dreamed of providing hospice care for these people, but for that she needed more funding.

Mrs. Peabody described Peabody House as "a place where people can go and feel safe and have a home-like atmosphere."

When Mrs. Peabody called for help with her vision, the community took note. As a member of the National Society of Colonial Dames and Greater Portland Landmarks, and the recipient of many community and national honors, she was in a position to organize a luncheon for Portland's most influential and powerful leaders. Mrs. Peabody talked frankly and made her guests see that AIDS wasn't just a "gay issue." The event marked a turning point for AIDS activism in the State as businesspeople, media figures, and members of Portland's oldest blue-blood families rallied to the cause. Five years later, Peabody House, the only residential care facility in Maine for people with AIDS, admitted its first residents.

Since its doors opened on Valentine's Day 1995, Peabody House has been a sanctuary for many people in need. Mrs. Peabody described it as "a place where people can go and feel safe and have a homelike atmosphere...where they can relax and feel wanted and loved and cared for." The mission of the Peabody House is to provide holistic care, supportive services, housing, and education to people living with and affected by AIDS. The renovated three-story house can accommodate up to six residents at a time and includes a guest room so visitors can stay close-by. More than 150 volunteers join the professional staff in providing compassionate quality care.

Mrs. Peabody was involved in a variety of charitable causes for most of her 98 years, but nothing touched her heart the way her work with AIDS patients did. While she didn't set out to be a role model, she became one of Maine's finest; bringing public attention to a misunderstood epidemic and inspiring people to become personally involved – by reaching out to gay men and others disproportionately affected; by offering hands-on care, services, prevention education, fundraising, and friendship to people living with AIDS. Mrs. Peabody stayed active in Peabody House and the community until just days before her death on June 26, 2001. She served as Grand Marshal of that year's Portland Pride Parade, a smiling example of how much we can accomplish when we work together as a community.

Physical Activity and Nutrition

GOAL

Improve health, fitness, and quality of life through daily physical activity and good nutrition.

Overview

Over the last century, the scales have tipped dramatically in terms of our physical activity and nutrition; and the resulting impact is profound. One hundred years ago, our ancestors faced a life in which their daily work – mostly farming and housework – most often included physical activity and fresh foods. Even maintaining a home – cooking, cleaning, washing laundry – required more physical exertion than today. Food was most likely to be locally produced and included a fair amount of vegetables. Health concerns pertaining to nutrition at that time were focused on undernutrition.

By contrast, for most of us today, physical activity is completely segregated from our work lives. Many of us sit the vast majority of our workday. And, in terms of nutrition, instead of eating locally grown food high in fiber, many of the foods we eat are processed, high in fat, high in sugar, and low in fiber.

What are the results of this dramatic change in our lifestyle? Instead of focusing on issues of undernutrition, we now have an epidemic of obesity that is disabling and killing us. About 60% of Americans and Maine people are now overweight or obese. One in five Americans and Maine people are obese; for both populations, this represents a 50% increase in only 20 years. Even more dramatic is the 100% increase in the percentage of American youth who are overweight over the same time period.

Poor nutrition and physical inactivity with resulting obesity results in death and disability from cardiovascular disease (heart disease and stroke), type 2 diabetes, cancer, chronic lung disease, gallbladder disease, sleep apnea, arthritis, high blood pressure, high cholesterol, and a myriad of other diseases. In fact, an estimated four people die every day in Maine from an underlying cause of poor nutrition or physical inactivity.

Although obesity has become an epidemic, we must also be cognizant of the fact that food security is a concern for many Maine citizens. In addition to people living with low income, nutritionally vulnerable groups such as pregnant women, children, and elders who all have increased nutrient needs compared to healthy adults, are particularly at risk for food insecurity and hunger.

PRIMARY SECONDARY TERTIARY

Strategies

- **Environmental Changes:** Environmental approaches to improving physical activity and nutrition involve changing the settings in which we live, work, play, and attend school in order to assure that we have easier access to healthy choices. Our environment has a strong impact on our behaviors that in turn impinge on health status. Our daily decisions about what we eat and what type of physical exercise we participate in are based on what is available to us and what barriers exist. For example, an individual who lives in a neighborhood located on a busy road with no sidewalks and where the most accessible nearby food is high fat fast food, already faces barriers that make it difficult to consume a healthy diet and get regular physical activity. We can make a difference by working together to change those aspects of our immediate community environments that create barriers to healthy lifestyles.
- **Education:** Examples include teaching comprehensive health education in our schools K–12; educating the public on ways to eat better and be physically active; implementing community education programs appropriate for whole families such as walking days; and media campaigns that counter unhealthy messages put forth by fast food industries.
- **Strategies to Reduce Risk:** Examples of initiatives include providing community resources and programs for those at risk for physical inactivity, poor nutrition, and obesity.
- **Strategies to Reduce Disease Burden:** Initiatives for those with obesity and overweight such as providing the community and medical resources are some examples.

Examples of Environmental Changes that can have a positive impact on nutrition and physical activity are:

- **Building sidewalks or bike lanes on new or newly paved roads;**
- **Creating multiuse trails, including those that connect services and people such as schools and neighborhoods;**
- **Opening school gyms in the evenings and weekends during the winter for recreational play;**
- **Assuring that school children are physically active for at least 50% of their physical education classes, which are offered on most school days;**
- **Offering secure places to store bikes at school and work places;**
- **Making showers and changing facilities available for employees who want to exercise during the workday;**
- **Assuring that employees have opportunities during work breaks for brisk walks and/or other forms of exercise;**
- **Advocating that food establishments – restaurants, snack bars, school/employer cafeterias, vending machines, concession stands, and events – serve heart healthy (low fat, high fiber, low sugar) food choices; and**
- **Working with grocery stores to offer menu items for heart healthy, easy-to-cook meals that are clustered and featured together.**

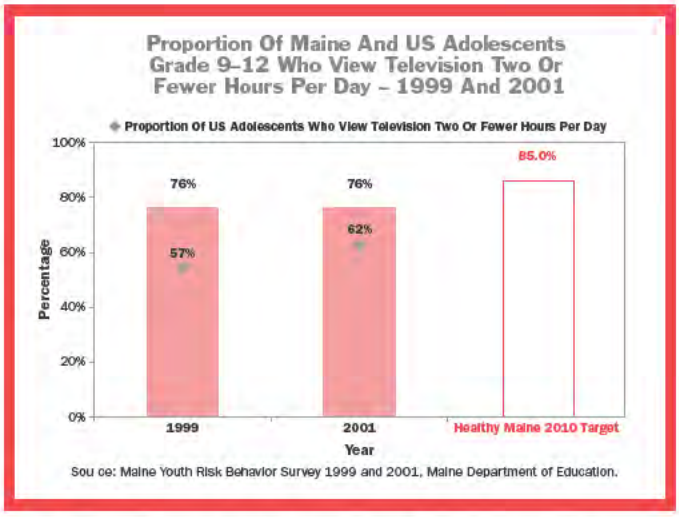
Health Disparities

- **Adolescents** (decreases in rates of physical activity during grades 9 through 12, with a more profound decrease among girls)
- **Older adults** (higher rates of no leisure-time physical activity)
- **People with disabilities** (higher rates of no leisure-time physical activity)
- **Women** (higher rates of no leisure-time physical activity)
- **Some racial and ethnic minorities** such as Hispanic, African Americans, and Native Americans (higher rates of obesity and of no leisure-time physical activity)
- **Low socioeconomic status** (higher rates of no leisure-time physical activity; higher risk for undernutrition)

Objectives

- **22–11 Increase the proportion of adolescents who view television two or fewer hours per day.**

Healthy Maine 2010 Baseline: 76%
Healthy Maine 2010 Target: 85%

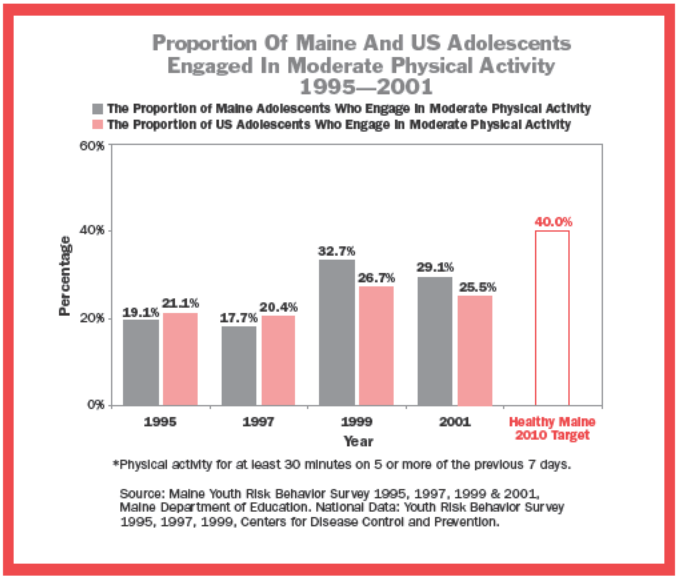


The amount of time spent viewing television is correlated with a decrease in physical activity and an increase in calorie consumption, particularly fatty and processed foods. This is particularly true among children, who are most likely to be physically active when not passively watching television. American youth ages 2–18 spend an average of four hours per day watching television, videotapes, playing video games, or using a computer. Almost three of these four hours are spent watching television. Nearly one-fifth (17%) of children watch more than five hours of television per day (Kaiser Family Foundation, "Kids and Media", November 1999). Having a television in a child's bedroom is a risk factor for increased television watching and subsequent obesity. Given that half of American children ages 2–18 have a television in their bedroom and one-third have a video game player in their bedroom, we face major challenges in achieving this objective (Kaiser Family Foundation, 2000).

Objective numbers are corresponding *Healthy People 2010* objective numbers.

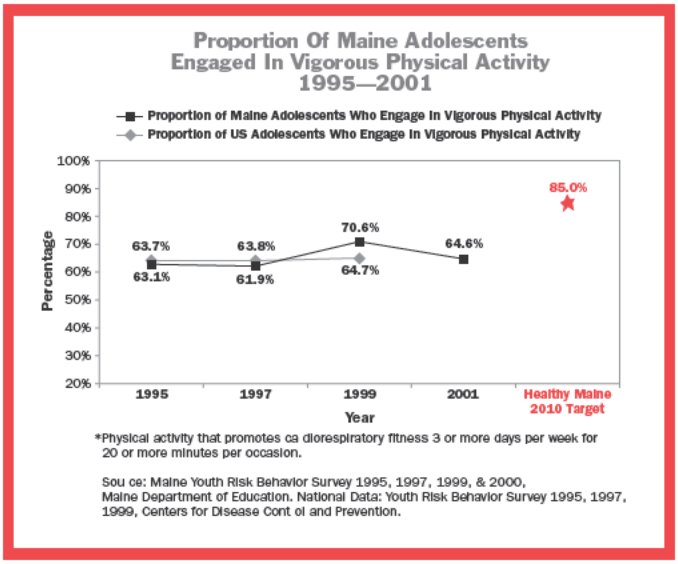
- **22-6 Increase the proportion of adolescents who engage in moderate physical activity for at least 30 minutes on 5 or more of the previous 7 days.**

  Healthy Maine 2010 Baseline: 32.7%
  Healthy Maine 2010 Target: 40%



- **22-7 Increase the proportion of adolescents who engage in vigorous physical activity that promotes cardiorespiratory fitness 3 or more days per week for 20 or more minutes per occasion.**

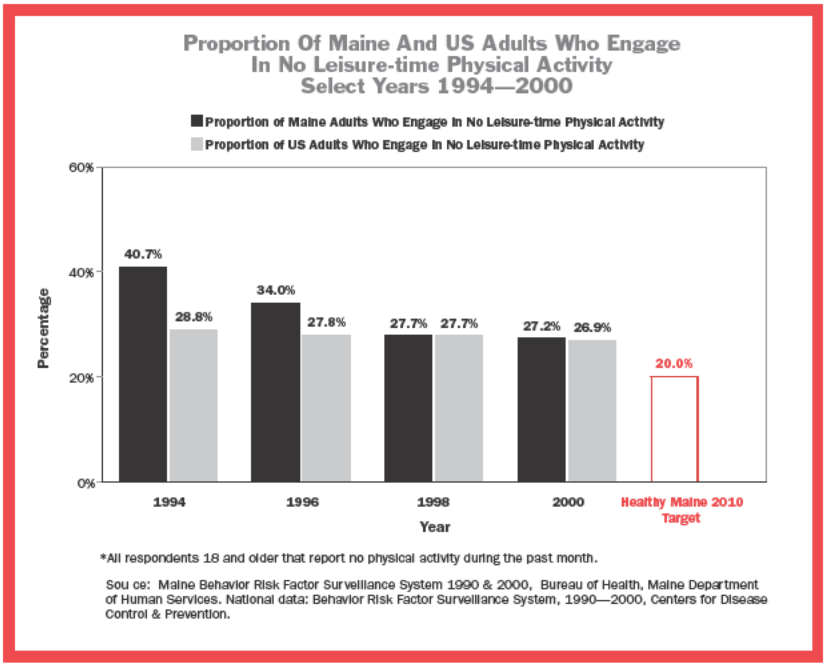
  Healthy Maine 2010 Baseline: 70.6%
  Healthy Maine 2010 Target: 85%



Physical activity declines throughout adolescence, yet this is one of the most critical times to learn lifetime habits of regular physical activity. Assuring that high school students are participating in regular physical education classes held on at least half of school days, spending at least 50% of these classes engaged in physical activity, and teaching them lifelong habits are effective strategies to achieve these objectives. Additionally, adolescents should be physically active as part of daily non-school activities such as play, games, sports, work, transportation, recreation, or planned exercise.

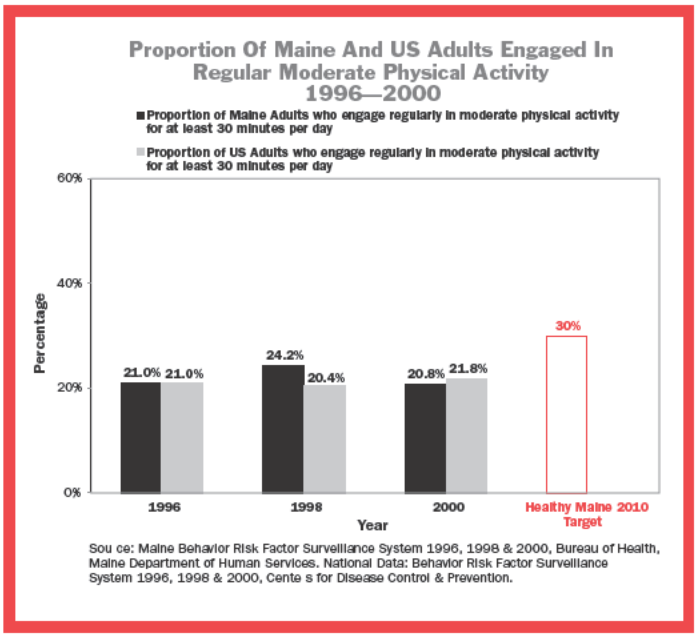
- **22–1 Reduce the proportion of adults who engage in no leisure-time physical activity.**

  Healthy Maine 2010 Baseline: 27.7%
  Healthy Maine 2010 Target: 20%



- **22–2 Increase the proportion of adults who engage regularly, preferably daily, in moderate physical activity for at least 30 minutes per day.**

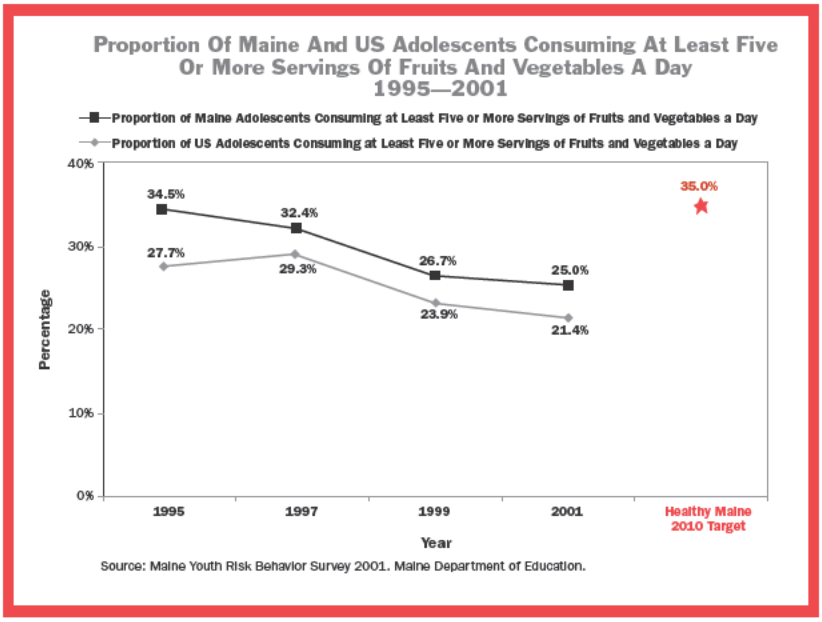
  Healthy Maine 2010 Baseline: 24.2%
  Healthy Maine 2010 Target: 30%



Increasing physical activity is one of the most critical health improvement interventions we can make; reducing morbidity and mortality from a wide range of diseases such as cardiovascular disease, diabetes, some chronic lung diseases, arthritis, high blood pressure, high cholesterol, and obesity. The highest risk of death and disability is found among those who do no regular physical activity, so engaging in any amount of activity is preferable to none. However, moderate to vigorous physical activity at least 30 minutes per day most days of the week is preferred. This objective can be achieved in a variety of ways, including integrating three 10-minute bursts of physical activity into one's day.

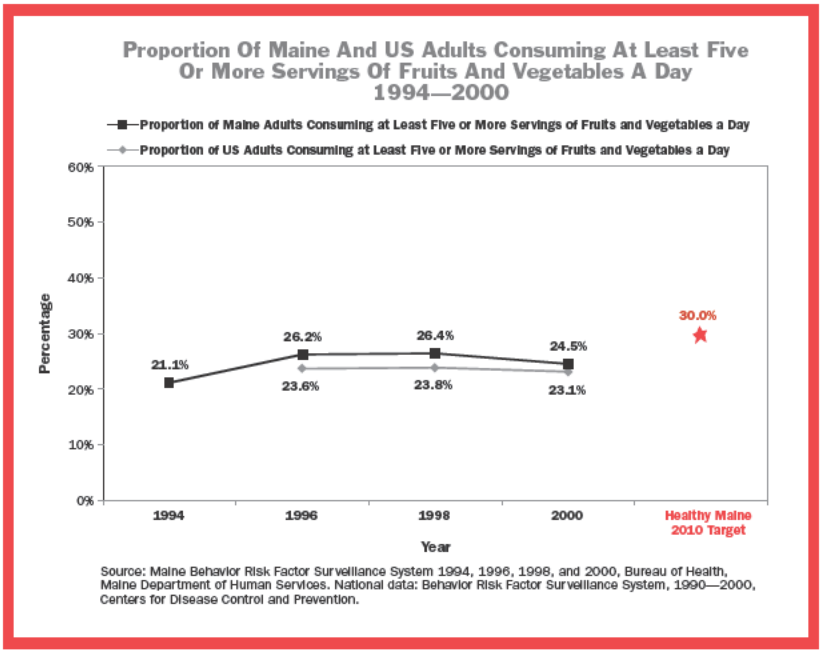
- **19–5, 19–6 Increase the proportion of adolescents consuming at least five or more servings of fruits and vegetables a day.**

  Healthy Maine 2010 Baseline: 26.7%
  Healthy Maine 2010 Target: 35%



- **19–5, 19–6 Increase the proportion of adults consuming at least five or more servings of fruits and vegetables a day.**

  Healthy Maine 2010 Baseline: 26.4%
  Healthy Maine 2010 Target: 30%

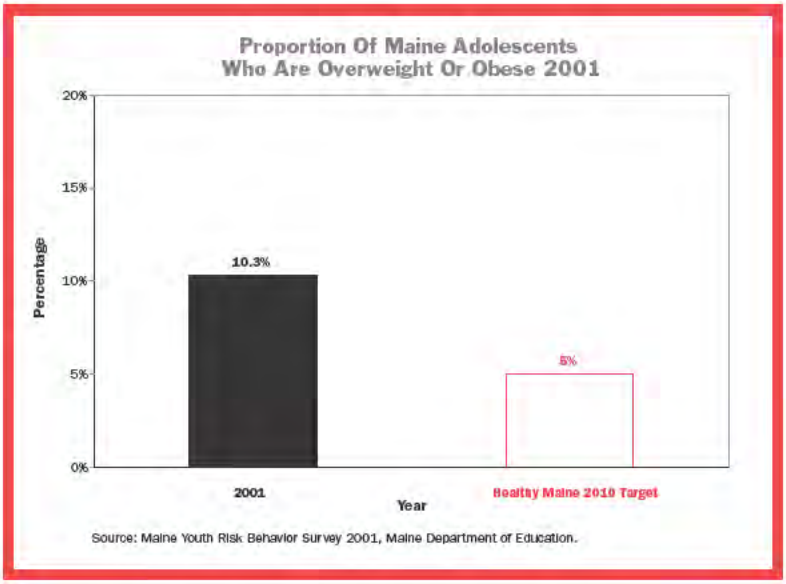


Vegetables (including legumes such as beans and peas), fruits, and grains are good sources of vitamins and minerals, fiber, and other substances that are important for good health. Intake of some high-fiber fruits and vegetables is associated with lower blood glucose, lower blood lipid levels, and lower risks for some cancers. Although dark green and deep yellow vegetables are highly recommended, french fries account for about one-third of vegetable servings consumed by American youth ages 2 to 19 years.

There is a growing body of research that indicates increased consumption of less healthy foods and beverages such as soda and fatty fast foods is replacing healthier foods such as fruits and vegetables, especially among our youth.

- **19–3 Reduce the proportion of adolescents who are overweight or obese.**

Healthy Maine 2010 Baseline: 10.3%
Healthy Maine 2010 Target: 5%



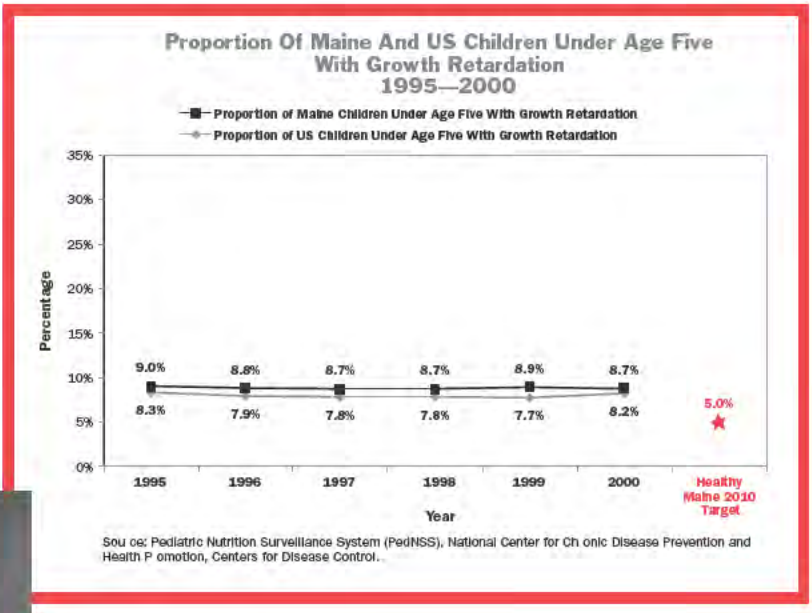
Maine's baseline data for this objective is measured by the Youth Risk Behavior Survey, which is obtained from high school students. The *Healthy People 2010* baseline is from several sources and includes children and adolescents ages 6 to 19 years, 1988–1994. Its baseline is 11%.

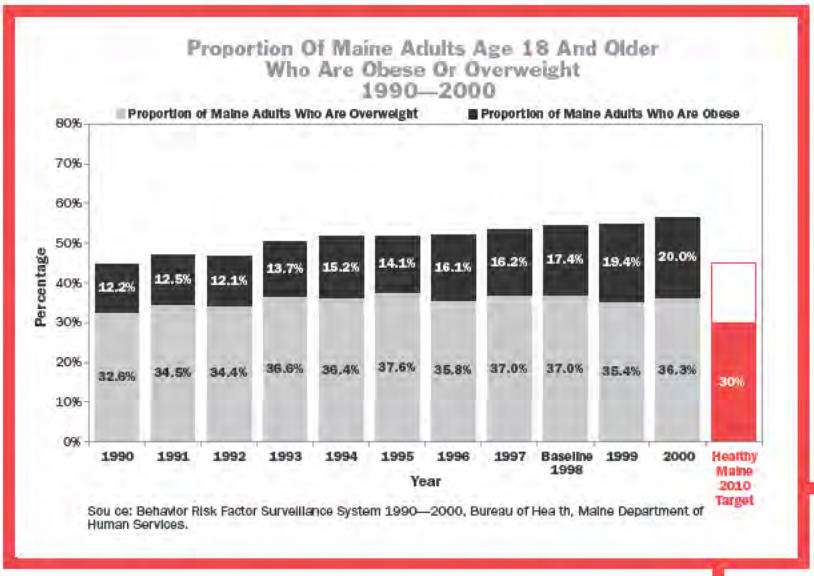
The percentage of overweight young people has doubled (increased by 100%) since 1980 (National Center for Health Statistics, US, 2000, Table 69). Of children who are overweight, 61% have one or more cardiovascular disease risk factors, and 27% have two or more, indicating a strong linkage between the obesity epidemic and negative health consequences (Freedman, *Pediatrics*, 1999). Type 2 diabetes, a disease almost exclusively previously seen among adults and associated with obesity, is increasing among adolescents.

- **19–4 Reduce growth retardation among low-income children under age 5 years.**

Healthy Maine 2010 Baseline: 8.7%
Healthy Maine 2010 Target: 5%

Growth retardation serves as an indicator of overall health and development and also may reflect the adequacy of a child's diet. Low income and some racial and ethnic minority children are at highest risk for growth retardation.



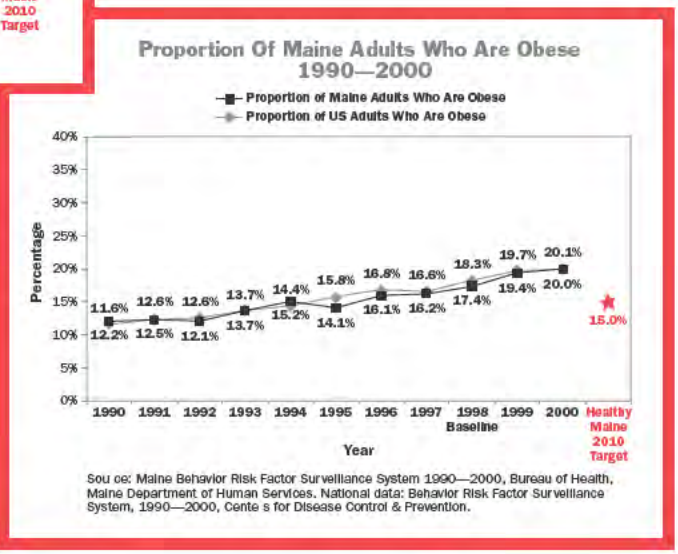


Sou ce: Behavior Risk Factor Surveillance System 1990—2000, Bureau of Hea th, Maine Department of Human Services.

- **19-1, 19-2 Reduce the proportion of adults who are overweight or obese.**

Maine Obese Adults
Healthy Maine 2010 Baseline: 17%
Healthy Maine 2010 Target: 15%

Maine Overweight Adults
Healthy Maine 2010 Baseline: 37%
Healthy Maine 2010 Target: 30%



Sou ce: Maine Behavior Risk Factor Surveillance System 1990—2000, Bureau of Health, Maine Department of Human Services. National data: Behavior Risk Factor Surveillance System, 1990—2000, Cente s for Disease Control & Prevention.

Maintenance of a healthy weight is a major goal in the effort to reduce the burden of illness and resulting reduction in quality of life and life expectancy. Body mass index (BMI), a calculation that factors one's weight along with height, is used to classify weight status. Only four decades ago, a major health concern in this country was undernutrition. Although this concern exists today, we now face an epidemic of overweight and obesity. Overweight and obesity lie on a continuum; obesity is generally considered a BMI of 30 or greater, which is generally at least 30 pounds overweight.

Body Mass Index (BMI):
Weight (in pounds) divided by the square of height (in inches) times 704.5. Also may be calculated by weight (in kilograms) divided by the square of height (in meters).

Overweight: BMI 25-29.9

Obese: BMI≥30

The majority of people across Maine and the nation are overweight or obese. Over the past 20 years, obesity has increased by an astonishing 50% nationally.

Commuting To Work

According to the US Census Bureau the most common ways we commuted to work in 1960 and 2000:

	US 1960	US 2000	Maine 2000
Car	64%	88%	89%
% of Car Drivers Who Drive Alone	Not Asked	76%	88%
Public Transportation	12%	5%	<1%
Walked	10%	3%	4%
Bicycle/ Other Means	Not Asked	1%	1%
Work at Home	7%	3%	5%

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Michael	Meserve	Maine Medical Center
Peter	Michaud	Eastern Maine Medical Center
Jeffrey	Miller	Bicycle Coalition of Maine
Mary	Moody	Maine Department of Education

First Name	Last Name	Organization Name
Nancy	Morris	Maine Health Alliance
Natalie	Morse	Maine General Medical Center
Michelle	Mosher	Maine DHS, Bureau of Health
Ellie	Mulcahy	Maine DHS, Bureau of Health
Tracy	Nelson	Maine Medical Center
Rhonda	Norman	Healthy Maine Community Coalition
Brenda	Obert	Governor's Council on Physical Fitness
Thomas	Openshaw	Eastern Maine Medical Center, Cancer Care of Maine
Karen	O'Rourke	Maine Center for Public Health
Mary	Owen	Maine DHS, Bureau of Health
Dean	Paterson	Health Care Solutions
Kristine	Perkins	Maine DHS, Bureau of Health
Diane	Peterson	Maine Medical Center
Terrence	Pickett	Maine Medical Center, Maine Center for Cancer Care
Pat	Pierson	University of Maine Cooperative Extension
Jan	Pilotte	Eastern Maine Medical Center
Jayne	Poprowicz	Senior Spectrum
Bonnie	Post	Maine Primary Care Association
Bill	Primmerman	Maine Department of Education
Karen	Quirk	Regional Medical Center at Lubec
James	Raczek	Eastern Maine Medical Center
Judy	Rawlings	Healthy Community Coalition
Lance	Reardon	Millinocket Regional Hospital
Sandy	Richard	Healthy Community Coalition
Roger	Richards	Maine Department of Education
Valerie	Ricker	Maine DHS, Bureau of Health
Lewis	Rioux	MDI Community Health Plan
Tammy	Rolfe	Maine DHS, Bureau of Health
Joanne	Rosenthal	Jewish Family Services
Stephen	Ross	Penobscot Bay Medical Center
Chris	Sady	University of Southern Maine, Muskie School – Maine Nutrition Network
Susan	Schow	Maine DHS, Bureau of Health
Stephen	Sears	Maine General Medical Center
Roanne	Seeley	Maine Department of Education
Paul	Shapans	
Shelley	Spencer	Calais Hospital Home Health
Dawn	Stiphen	CIGNA Healthcare Of Maine
Tina	Streker	
Jill	Sullivan	Fairchild Semiconductor, Health and Fitness Center
Anne	Summer	
Stephanie	Swan	Maine Department of Education
Faith	Thibodeau	Goodall Hospital
Edward	Trainer	Medical Care Development
Cheryl	Tucker	American Cancer Society
Mary	Walsh	Maine DHS, Bureau of Elder and Adult Services
Pat	Watson	Stephens Memorial Hospital
Fran	Wheelock	Healthreach Network, Inc.
Katherine	Wilbur	Maine Department of Education
Bob	Woods	Maine DHS, Bureau of Health
Maryann	Zaremba	Maine DHS, Bureau of Health

Substance Abuse

GOAL

Reduce substance abuse, including tobacco use and exposure to secondhand smoke, to protect the health, safety, and quality of life for all, especially children.

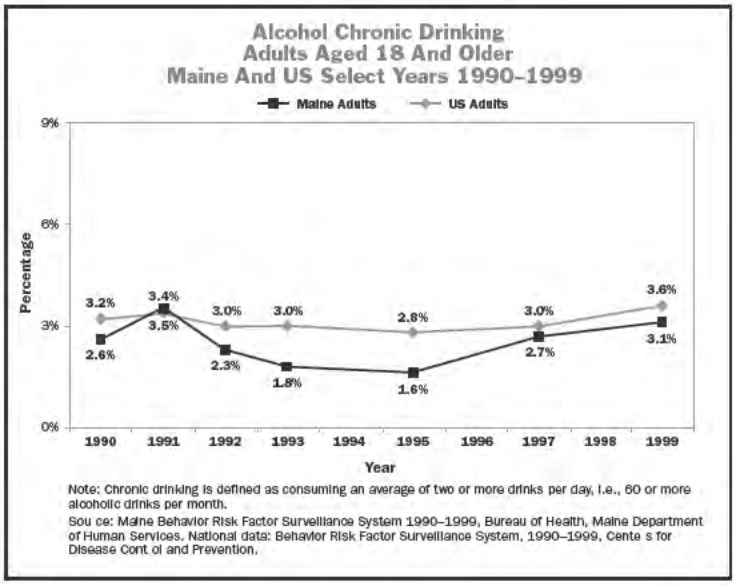
Overview

Substance abuse and addiction are among society's most pervasive health and social concerns. In Maine, it is estimated that substance abuse costs over $1 billion in lost wages, medical expenses, social services, and criminal justice expenditures. Tobacco contributes an additional one-half billion in health care costs alone. The devastating emotional and social impact on one's family, friends, and community from alcohol, illicit drug, and tobacco addiction is immeasurable.

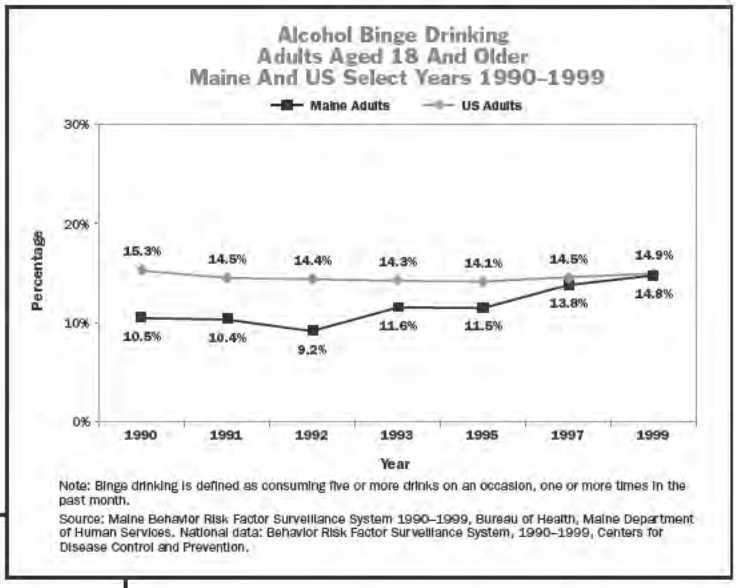
Alcohol

Alcohol-related diseases and injuries claim the lives of an estimated two people per day in Maine. As importantly, alcohol's effects are far-reaching – not only disabling the person who is alcohol dependent or who abuses alcohol but affecting, even devastating, their family, co-workers, and friends.

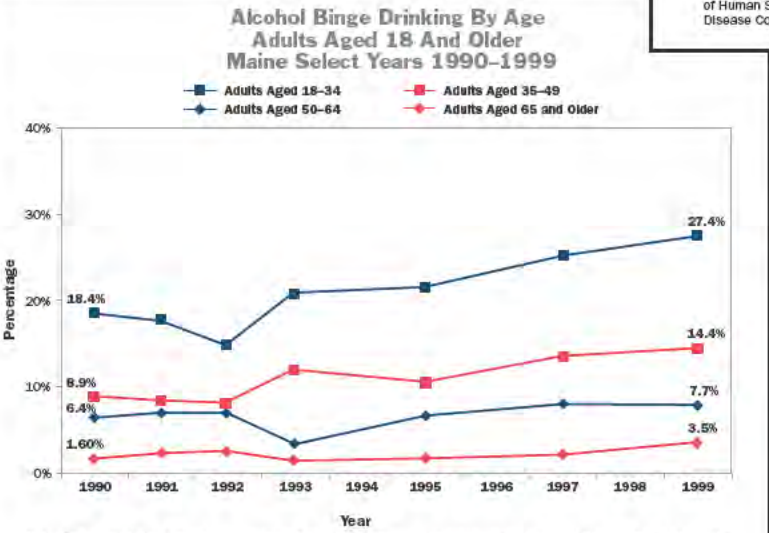
Alcohol use and dependence is very common. Nationally, 44% of adults report drinking at least 12 drinks over the past year. Of these current drinkers, 10% meet the criteria for alcohol dependence and an additional 7% meet the criteria for alcohol abuse.



Although light to moderate drinking (generally 1–2 drinks per day, depending on body mass index) has been shown to have some beneficial effects on the heart, particularly for men and women over age 45, this same amount of drinking at other times can be very harmful. For instance, alcohol use, even light to moderate use, during pregnancy can be harmful to the fetus. Additionally, even small amounts of alcohol can impair one's motor skills and is associated with a higher risk of injury and death from operating a vehicle.

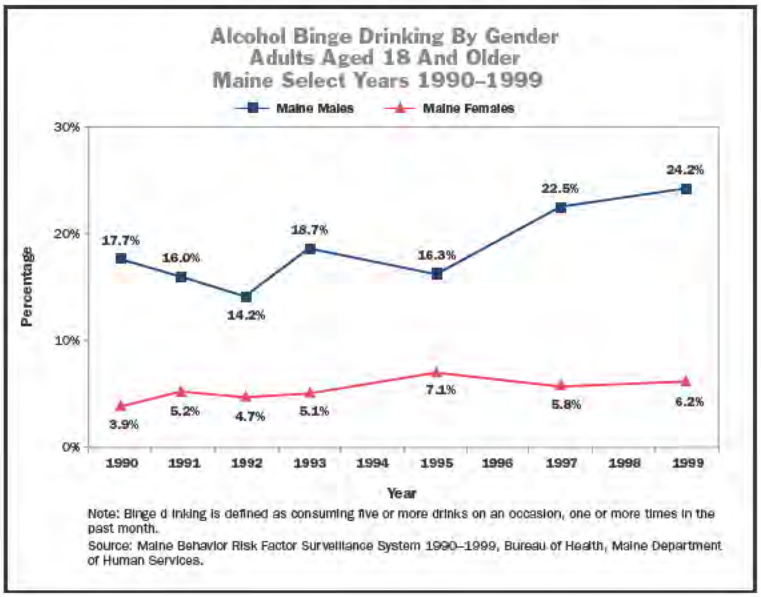


Note: Binge drinking is defined as consuming five or more drinks on an occasion, one or more times in the past month.
Source: Maine Behavior Risk Factor Surveillance System 1990–1999, Bureau of Health, Maine Department of Human Services. National data: Behavior Risk Factor Surveillance System, 1990–1999, Centers for Disease Control and Prevention.

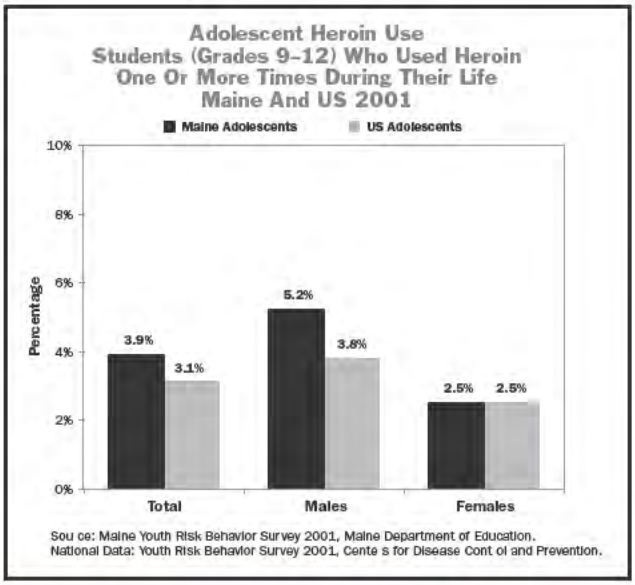


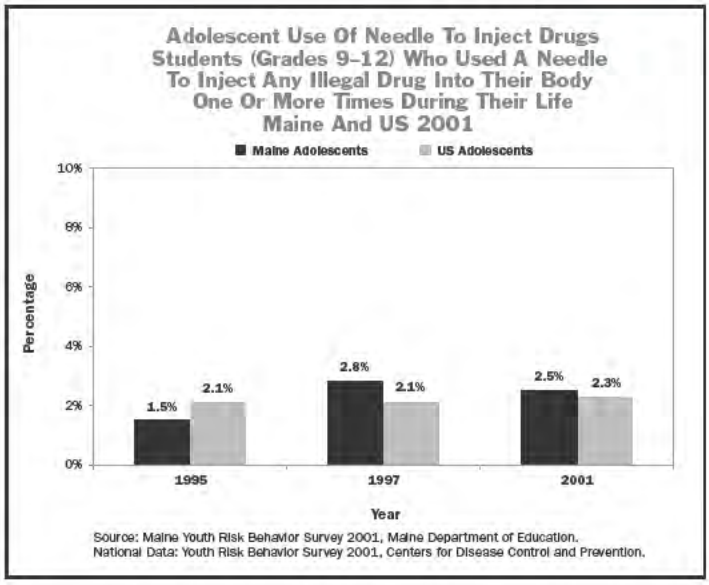
Note: Binge drinking is defined as consuming five or more drinks on an occasion, one or more times in the past month.
Source: Maine Behavior Risk Factor Surveillance System 1990–1999, Bureau of Health, Maine Department of Human Services.

Long-term heavy drinking is associated with high blood pressure; heart disease; stroke; cancers of the mouth, throat, larynx, esophagus, colon, and breast; cirrhosis and other liver disorders; worsening of hepatitis C. Alcohol use is linked to a substantial portion of injuries and deaths from motor vehicle crashes, falls, fires, drownings, homicides, suicides, domestic violence, child abuse, and high-risk sexual behavior.



Note: Binge d inking is defined as consuming five or more drinks on an occasion, one or more times in the past month.
Source: Maine Behavior Risk Factor Surveillance System 1990–1999, Bureau of Health, Maine Department of Human Services.





According to Maine's Office of Substance Abuse, oxycontin appears to serve as a gateway drug to heroin. Its original attraction is that it is a prescription drug with a specific and accurate dose. When oxycontin users become addicted and tolerant, the negative images of heroin are no longer a barrier to trying it. Heroin is also often more available than oxycontin. Indeed, it appears that oxycontin addiction has been increasing over the past six years, and more recently it appears there has been a surge in heroin addiction, even in northern parts of the State.

Illicit Drugs

Although there has been an overall decline in illicit drug use over the last three decades, one-third of all Americans have used an illicit drug at sometime in their lifetime. Of these, 90% used marijuana, 50% cocaine, and an increasing percentage have used methamphetamine. In Maine, recent illicit drugs that are on the rise include oxycontin, a prescription opoid, as well as heroin. During 2001 and 2002 in Maine there has been an alarming and dramatic increase in the numbers of reports of young people dying from illicit drug use.

Use of illicit drugs is associated with serious consequences such as injury, crime, domestic violence, lost workplace productivity, STDs including HIV, hepatitis B and C, a variety of other illnesses, and death. In addition, a substantial number of illicit drug users have co-occurring chronic mental health disorders.

Tobacco

Many are calling the twentieth century the Tobacco Century. One hundred years ago few people were addicted to tobacco, since cigarettes were hand-rolled, relatively expensive, and not significantly marketed. Because of the mass production and mass marketing of tobacco that began in the 1910s, a tobacco epidemic began, needlessly killing millions. Today, about one-quarter of all adults and high school students in Maine are

PARTNERSHIP FOR A TOBACCO-FREE MAINE GOALS

- To prevent youth and young adults from starting to use tobacco
- To motivate and assist tobacco users to quit
- To protect the public from the hazards of secondhand smoke
- To identify and eliminate disparities related to tobacco use among population groups

Calling All Quitters 1-800-207-1230 THE MAINE TOBACCO HELPLINE

KICK BUTTS! RACING Healthy Maine Partnerships

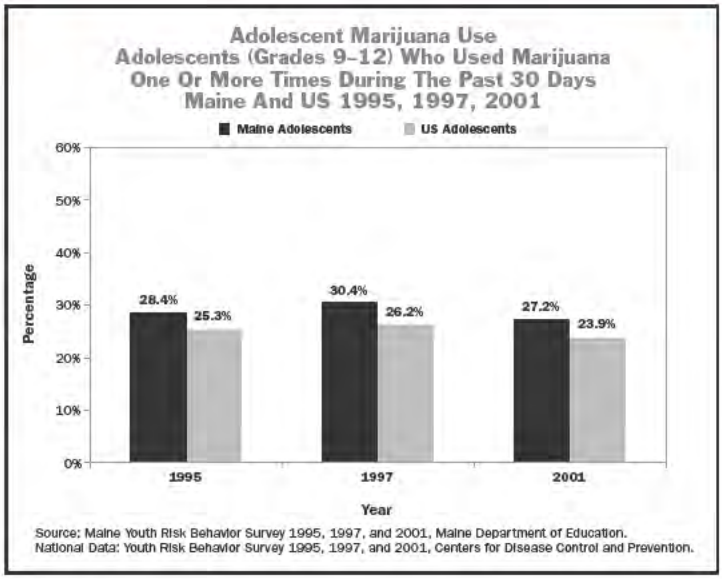
PROGRAM COMPONENTS INCLUDE:

- State infrastructure for addressing tobacco prevention and control
- Multimedia and public awareness campaigns
- Community programs
- School programs
- Surveillance and evaluation
- Enforcement of tobacco laws
- Statewide system of tobacco treatment services
- Statewide youth advocacy network
- Local youth advocacy programs

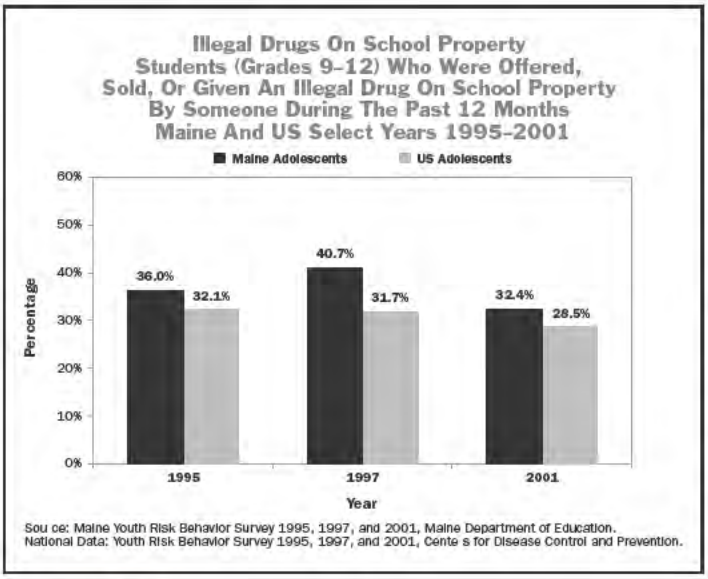
Every Mother's Wish

NO BUTS! for kids here

addicted to tobacco. National studies show that one-third of youth who experiment with tobacco will become addicted, and one-third of youth who smoke will die from a tobacco-related death. It is estimated that of those adults who continue to smoke, over half of them (55%) will die from their tobacco addiction (CDC, MMWR, November 8, 1996). Nicotine, the active ingredient in tobacco, is as addictive as heroin. Yet, it is a legal substance that the tobacco industry spends an estimated $8 billion per year advertising; many of those dollars aimed at our youth and young adults.



Source: Maine Youth Risk Behavior Survey 1995, 1997, and 2001, Maine Department of Education.
National Data: Youth Risk Behavior Survey 1995, 1997, and 2001, Centers for Disease Control and Prevention.



Sou ce: Maine Youth Risk Behavior Survey 1995, 1997, and 2001, Maine Department of Education.
National Data: Youth Risk Behavior Survey 1995, 1997, and 2001, Cente s for Disease Control and Prevention.

What is the result of this mass production and mass marketing? Massive disability and death are the result. Tobacco disables and kills people through a number of diseases, among them: heart disease; stroke; numerous cancers such as lung, throat and bladder cancer; emphysema; asthma; diabetes; sudden infant death syndrome; low birth weight; childhood asthma; childhood ear infections; and childhood pnemonia. Each day in Maine, an estimated seven people die from a tobacco-related death: seven people who suffered from a tobacco-related illness, most of them for a long time with resulting disabilities; seven families who are grieving the early loss of a loved one; seven Maine people who will be surely missed.

Prevention and Treatment

There is good news. Effective prevention and treatment interventions are more available today for various substances than just a few years ago. Effective prevention strategies are very similar for all substances, including tobacco, and generally include those that strive to change the cultural beliefs about drugs; to enforce existing laws, especially those pertaining to youth access for alcohol and tobacco; to educate about the effects of different substances; to counter the mass marketing by the alcohol and tobacco industries; to provide healthy alternative activities for our youth; and to reduce the secondhand effects of drugs.

Effective treatment programs vary greatly among individual drug users, as well as among different substances. However, recognizing this and developing these tailored treatment programs is something Maine is striving for.

PRIMARY
SECONDARY
TERTIARY

Strategies

- **Decreasing the Supply:** Decreasing the availability of substances through promotion and training of responsible retailing practices, as well as random unannounced inspections using minors for the purchase of tobacco and alcohol; identifying and eliminating social sources of youth access to tobacco, alcohol, and illicit drugs; and using law enforcement efforts to decrease the supply of illicit drugs are some examples.
- **Decreasing the Demand:** Strategies include increasing the proportion of youth participating in positive skill-building activities such as organized sports, music, art activities; and increasing the price of tobacco and alcohol through excise taxes.
- **Environmental Changes:** Implementing interventions to reduce secondhand effects of drugs such as making environments smoke-free, and providing support groups for family members and friends of those who are addicted to alcohol and drugs; changing the cultural norm and attitudes toward substances to one that says "everyone has better things to do than drugs, alcohol, tobacco" and that makes it uncool to drive drunk; banning or restricting the location of stores that sell drug paraphernalia; or encouraging alcohol and chemical-free dance clubs are all examples.
- **Education:** Education strategies include strengthening refusal skills for youth that helps them reject peer pressure to use alcohol, tobacco, and illicit drugs; and educating youth and adults about the types of drugs being used in the population and their toxic effects.
- **Initiatives for Those at Risk:** These include prevention interventions focused on those at risk such as at-risk youth and adults who have a history of binge drinking or driving under the influence.
- **Treatment Initiatives:** Assuring easy access to appropriate treatment for alcohol abuse, illicit drug use, and tobacco addiction are some examples.

Health Disparities

(Populations at risk for substance abuse and tobacco use, based on national data in *Healthy People 2010*)

- **Adolescents and young adults** (more likely to die in an alcohol-related motor vehicle crash; higher rates of tobacco use)
- **Older people** (higher risks for alcohol-related problems)
- **Adolescent boys** (more likely to use spit tobacco)
- **Men** (more likely to die in an alcohol-related motor vehicle crash; more likely to be tobacco addicted)
- **People with co-occurring disorders such as mental health disorders** (often cannot access appropriate substance abuse treatment)
- **Sexual minorities** (more likely to be tobacco addicted)
- **Low socioeconomic status** (more likely to die from cirrhosis or from a drug-induced death; more likely to be tobacco addicted)
- **Native Americans** (higher rates of deaths due to alcohol-related motor vehicle crashes and cirrhosis; higher rates of alcohol or illicit drug and alcohol binge drinking during the past 30 days; higher proportion of adults who exceed guidelines for low-risk drinking; more likely to be tobacco addicted)
- **White and Hispanic adolescents** (more likely to use alcohol)
- **White adolescents** (more likely to use illicit drugs and tobacco)
- **White adults** (more likely to use alcohol and tobacco)
- **White and African-American adults** (more likely to use any illicit drugs)

Objectives

Objective numbers are *Healthy People 2010* objective numbers.

- **26–23 (Developmental) Increase the number of communities using partnerships or coalition models to conduct comprehensive substance abuse prevention efforts.**

  The Office of Substance Abuse currently funds substance-abuse prevention efforts across Maine with Fund for a Healthy Maine (Maine's share of the National Tobacco Settlement) and Federal funds. This objective should be measurable in the near future.

  A comprehensive program of interventions at the community level is crucial to effective substance abuse prevention, since they enable communities to address issues related to their environments, not just their at-risk populations. Improving the environment means changing local ordinances and policies, coordinating local prevention services, increasing resident participation, communicating with local media, and addressing numerous environmental factors that lead to putting people at risk for substance abuse. Effective community partnerships commonly share a community-wide vision, a strong core of community partners, an inclusive and broad membership, an ability to avoid or resolve conflict, local staff with low turnover, and a large array of locally-tailored prevention programs that empower residents to take action.

- **27–10 Reduce the proportion of nonsmokers exposed to secondhand smoke.**

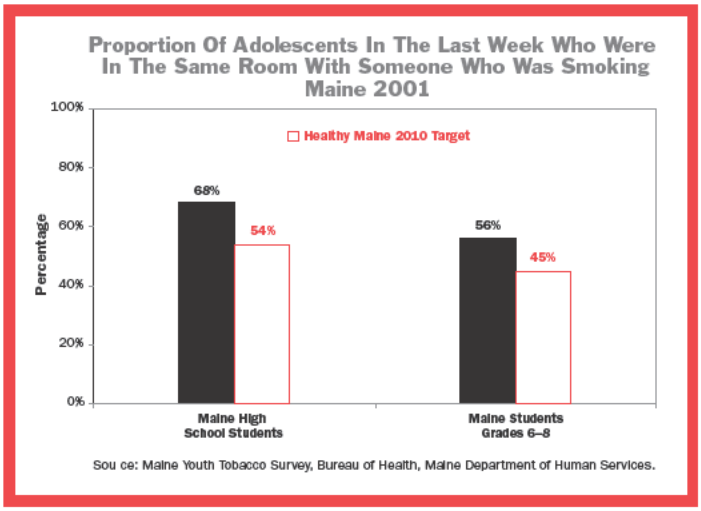
27–10a Increase the number of public indoor and outdoor places that are legally protected from secondhand smoke.

(see insert below)

27–10b Reduce the proportion of Maine adolescents who were in the same room with someone who was smoking.

Maine High School Students
Healthy Maine 2010 Baseline: 68%
Healthy Maine 2010 Target: 54%

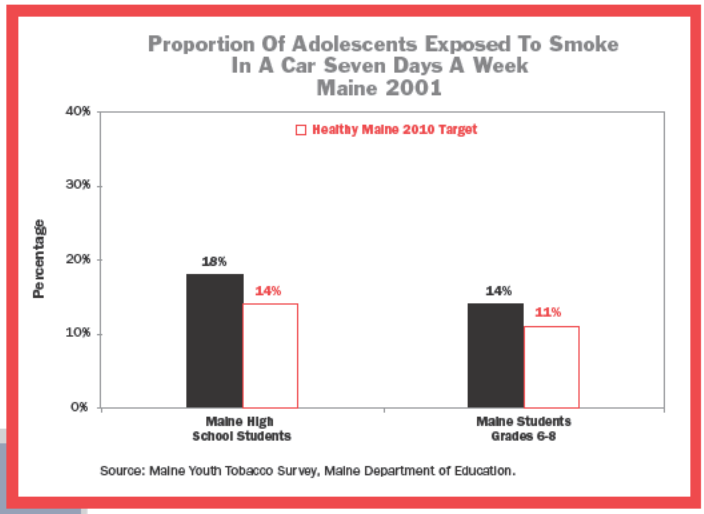
Maine Students Grades 6–8
Healthy Maine 2010 Baseline: 56%
Healthy Maine 2010 Target: 45%



27–10c Reduce the proportion of Maine adolescents exposed to smoke in a car seven days a week.

Maine High School Students
Healthy Maine 2010 Baseline: 18%
Healthy Maine 2010 Target: 14%

Maine Students Grades 6–8
Healthy Maine 2010 Baseline: 14%
Healthy Maine 2010 Target: 11%

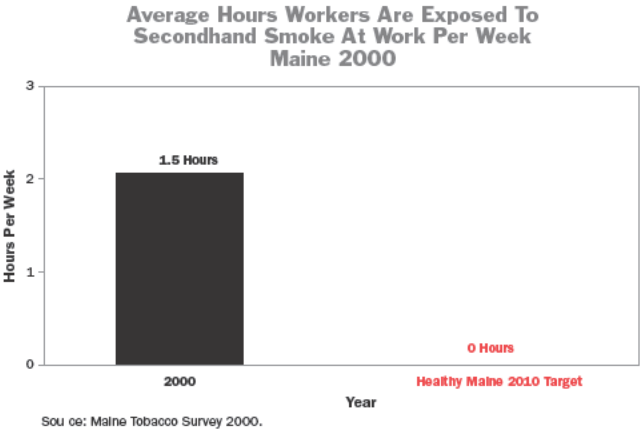


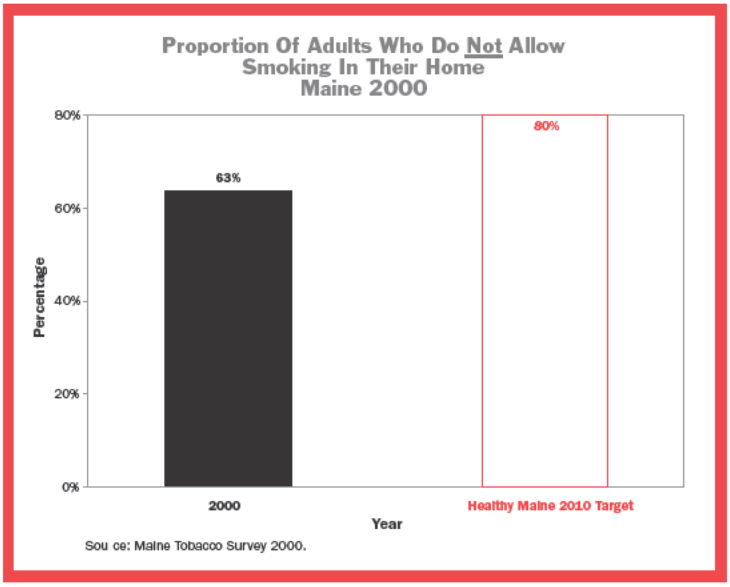
Most public indoor places in Maine are smokefree, including workplaces. Major exceptions are:

- **class A lounges and taverns (licenses that do not allow unaccompanied minors under age 21)**
- **pool halls when minors under age 18 are allowed**
- **licensed beano or bingo halls when game is being played**
- **tobacco stores under 2,000 square feet**
- **motel and hotel rooms**

27–10d Reduce the average hours Maine workers are exposed to secondhand smoke at work.

Healthy Maine 2010 Baseline: 1.5 Hours Per Week
Healthy Maine 2010 Target: 0.0 Hours Per Week





27–10e Increase the proportion of Maine adults who do not allow smoking in their home.

Healthy Maine 2010 Baseline: 63%
Healthy Maine 2010 Target: 80%

National surveys indicate that 65% of nonsmokers, age four years and older 1988–1994, were exposed to tobacco smoke as measured by blood cotinine levels. Data sources in Maine to measure this objective are from Maine Tobacco Surveys.

Secondhand smoke is the unfiltered smoke coming off the tip of the cigarette and the sidestream smoke exhaled by the smoker. Secondhand smoke is also found with pipe and cigar smoking. Since it is mostly unfiltered, secondhand smoke contains higher concentrations of many of the harmful chemicals found in cigarette smoke. Exposure to secondhand smoke is associated with unhealthy low birth weight, sudden infant death syndrome (SIDS), childhood pneumonia, childhood and adult asthma, childhood ear infections, heart disease, emphysema, and lung cancer. Secondhand smoke is classified by the Environmental Protection Agency and others as a Class A carcinogen, in the most toxic class of all cancer-causing chemicals – that for which there is no safe human exposure.

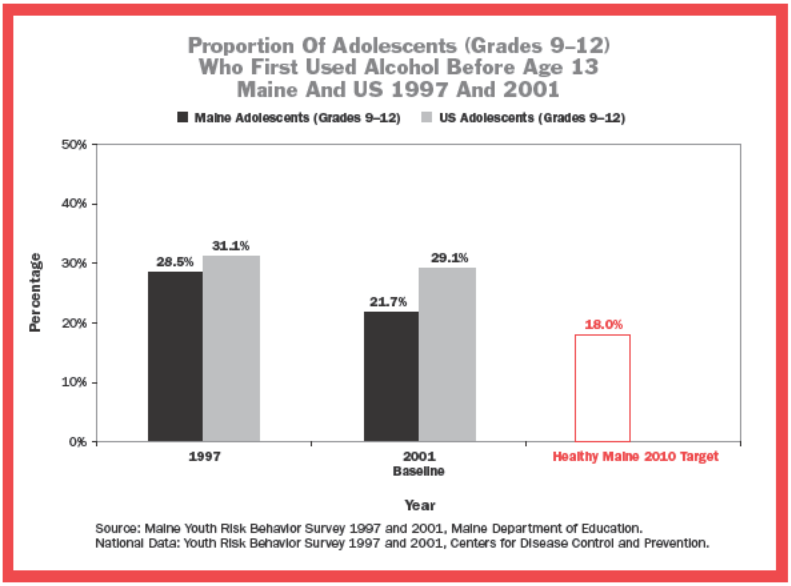
Exposure to secondhand smoke should decline as efforts to eliminate public smoking, to prevent tobacco addiction, and to help those who wish to quit are increasingly successful.

According to the 2000 Maine Adult Tobacco Survey, 88% of employed respondents said smoking is not allowed in any areas of their workplace; 6.3% said it is allowed in some areas; and 6.2% said it is allowed in all areas. Ninety-four percent (94%) said they believed secondhand smoke is harmful and 91% said they feel the public should be protected from secondhand smoke.

- **26–9 Increase the age and proportion of adolescents who remain alcohol- and drug-free.**

26–9a Reduce the proportion of Maine and US adolescents who first used alcohol before age 13.

Healthy Maine 2010 Baseline: 21.7%
Healthy Maine 2010 Target: 18.0%

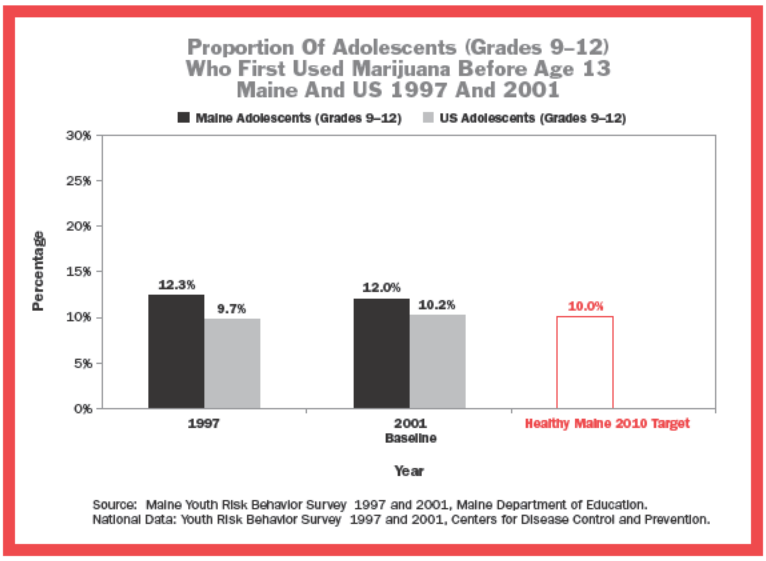


26–9b Reduce the proportion of Maine and US adolescents who first used marijuana before age 13.

Healthy Maine 2010 Baseline: 12%
Healthy Maine 2010 Target: 10%

26–9c (Developmental) Increase the proportion of Maine and US adolescents who never used any drug.

Data not available for Maine.



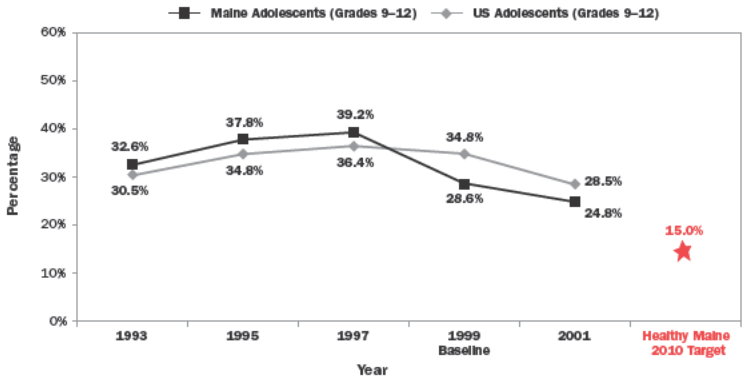
According to a recent Maine Office of Substance Abuse report, it appears that prescription opiates, such as oxycontin, may be one of the first drugs abused among Maine young people.

The age at onset of drinking or use of other drugs strongly predicts development of dependence. Therefore, an important prevention goal is to increase the age and proportion of adolescents who remain alcohol- and drug-free. Nationally, nearly 40% of those who start drinking at age 14 or younger will develop alcohol dependence sometimes in their lives; of those who start drinking at age 21 or older, only 10% will become dependent.

- **27–2 Reduce tobacco use by adolescents (students in grades 9–12).**

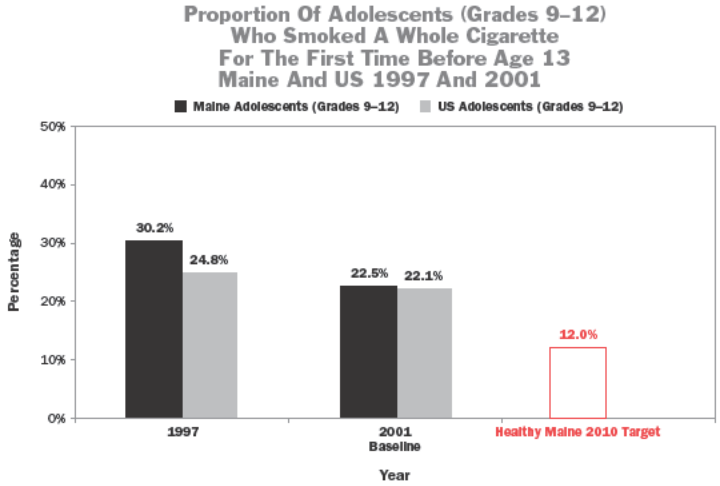
27–2a Reduce cigarette smoking among Maine and US adolescents.

Healthy Maine 2010 Baseline: 28.6%
Healthy Maine 2010 Target: 15.0%



Cigarette Smoking Among Adolescents (Grades 9–12) Maine And US 1993–2001

Source: Maine Youth Risk Behavior Survey 1993, 1995, 1997, 1999, and 2001, Maine Department of Education.
National Data: Youth Risk Behavior Survey 1993, 1995, 1997, 1999, and 2001, Centers for Disease Control and Prevention. 1993 and 1999 Maine YRBS data are unweighted, so cannot be reliably used for comparison.

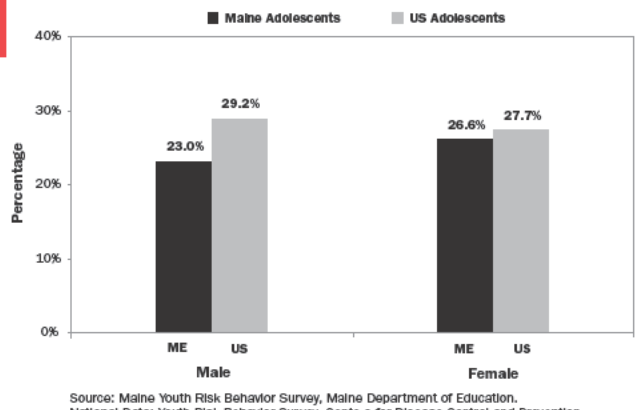


Proportion Of Adolescents (Grades 9–12) Who Smoked A Whole Cigarette For The First Time Before Age 13 Maine And US 1997 And 2001

Source: Maine Youth Risk Behavior Survey 1997 and 2001, Maine Department of Education.
National Data: Youth Risk Behavior Survey 1997 and 2001, Cente s for Disease Cont ol and Prevention.

27–2b Reduce the proportion of US and Maine adolescents who smoked a whole cigarette for the first time before age 13.

Healthy Maine 2010 Baseline: 22.5%
Healthy Maine 2010 Target: 12.0%



Cigarette Smoking By Gender Grades 9–12 Maine And US 2001

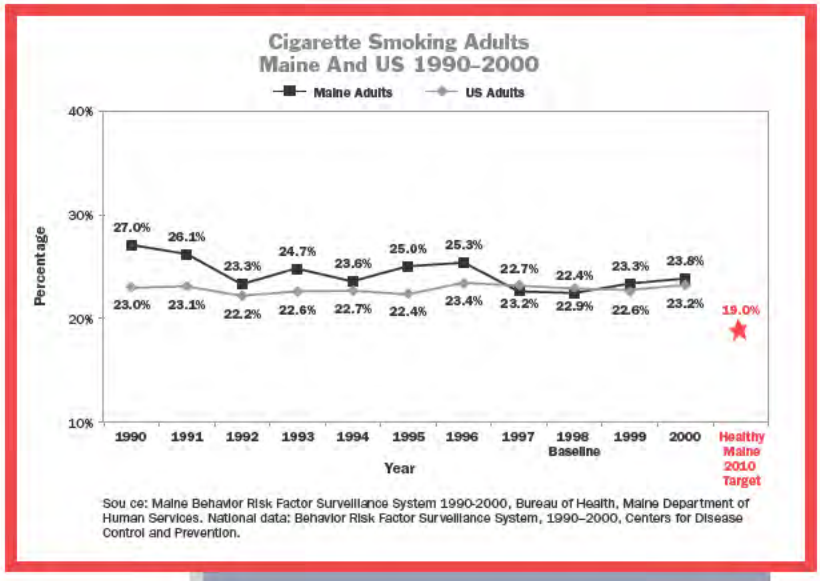
Source: Maine Youth Risk Behavior Survey, Maine Department of Education.
National Data: Youth Risk Behavior Survey, Cente s for Disease Control and Prevention.

Ninety percent (90%) of adult smokers started their tobacco addiction as youth. One-third of those youth who try tobacco become addicted, and of those youth who smoke, one-third will die from a tobacco-related disease. Therefore, giving our youth the tools to prevent tobacco use is critical to reducing tobacco's burden. However, effective prevention efforts need to be in the context of a comprehensive program that includes treatment, enforcement, counter-marketing, education, and local interventions.

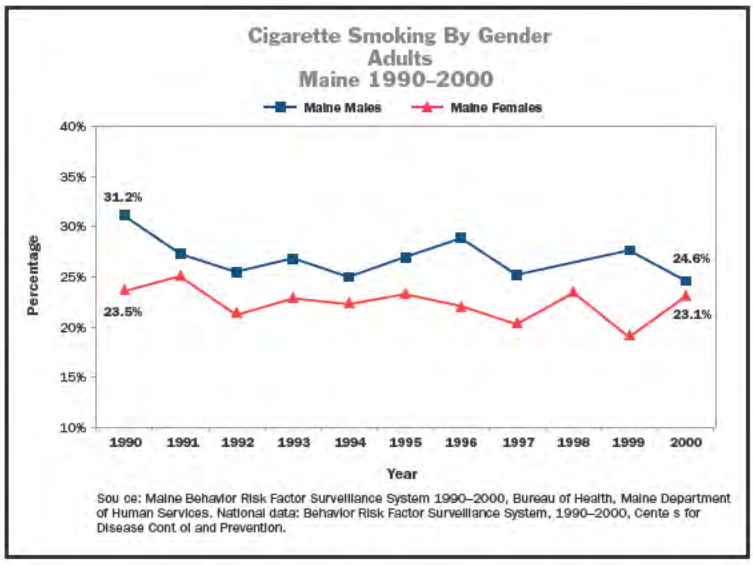
- **27-1 Reduce tobacco use by adults.**

  Healthy Maine 2010 Baseline: 22.9%
  Healthy Maine 2010 Target: 19.0%

Over three-quarters (76%) of adult smokers in Maine wish to quit, and for those who do quit, the negative health effects of tobacco are mostly reversible. For those adults who continue to smoke, over half (55%) will die from their tobacco addiction. Therefore, it is critical to assure easy access to effective treatments such as counseling and pharmaceuticals, as well as to provide smoke-free public environments in order to help reduce tobacco's burden among adults.



Sou ce: Maine Behavior Risk Factor Surveillance System 1990-2000, Bureau of Health, Maine Department of Human Services. National data: Behavior Risk Factor Surveillance System, 1990–2000, Centers for Disease Control and Prevention.



Sou ce: Maine Behavior Risk Factor Surveillance System 1990–2000, Bureau of Health, Maine Department of Human Services. National data: Behavior Risk Factor Surveillance System, 1990–2000, Cente s for Disease Cont ol and Prevention.

Maine's Tobacco HelpLine provides counseling to any Maine resident who wants to quit using tobacco. It also provides access to pharmaceuticals for those who qualify. Funded with tobacco settlement dollars, the program is free and confidential.

HelpLine counselors help boost the caller's confidence and give strategies to get through the tough times. Callers are given guidance and help tailored to their own individual needs. Counselors discuss a variety of issues such as how to develop coping skills while off tobacco. If a caller agrees, a series of counseling sessions will be arranged and written materials are sent out.

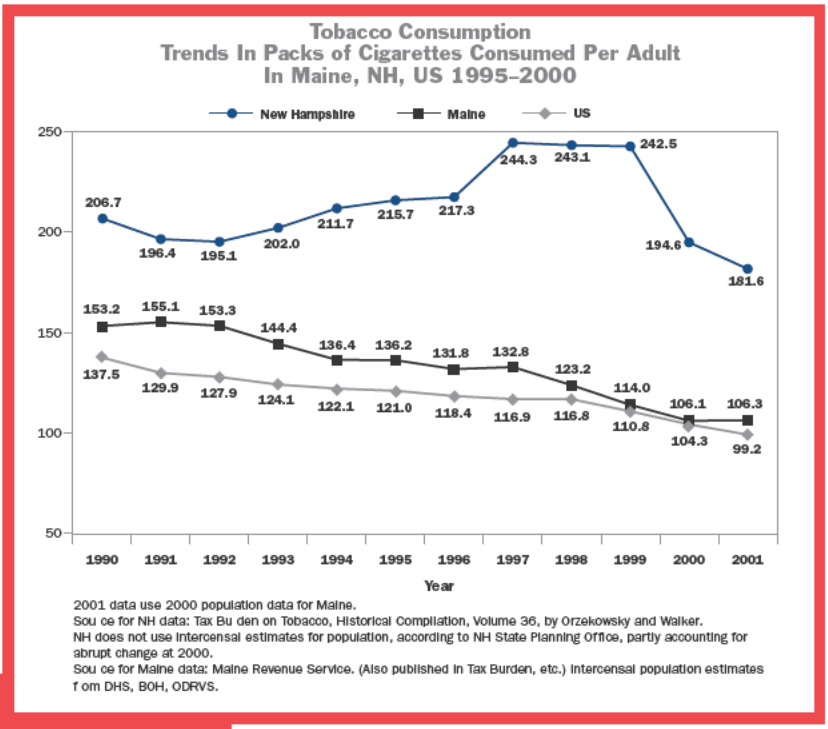
As of August 1, 2002, Nicotine Replacement Therapy (NRT) has become available through the HelpLine at no charge for eligible callers. Callers are eligible for NRT, if they have no health insurance or no insurance coverage for tobacco treatment medication or programs. The NRT consists of nicotine gum and the nicotine patch.

The HelpLine number is 1-800-207-1230.

- **Reduce tobacco consumption**

  Tobacco use is measured by two major statewide indicators – the percent of a population that is addicted, commonly known as smoking rates, and tobacco consumption, which is the packs sold per adult. The early result of effective prevention and treatment interventions is that smokers reduce their overall consumption before a significant proportion of them are no longer tobacco addicted.

  Tobacco consumption also drops in response to price hikes. Maine's excise tax increased from 37 cents to 74 cents per pack in November of 1997, then increased to one dollar per pack in October of 2001.



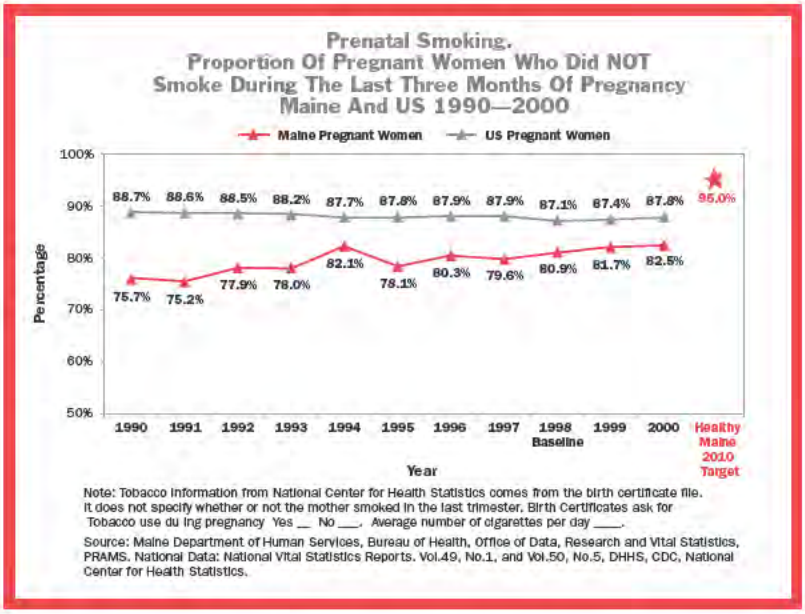
STATE EXCISE TAXES ON CIGARETTES, PER PACK AS OF 9/02:

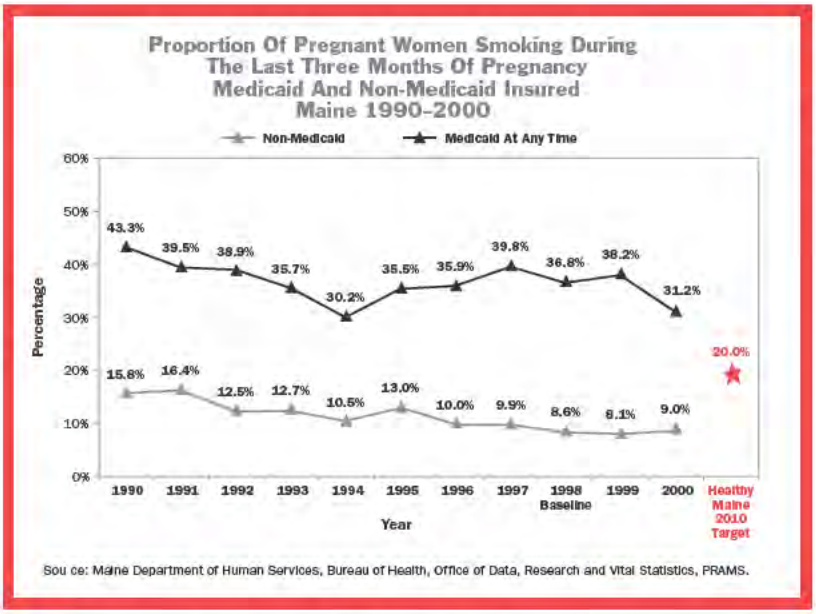
New York	**$1.50**
(NYC has an additional $1.50 per pack)	
New Jersey	**$1.50**
Washington	**$1.425**
Rhode Island	**$1.31**
Michigan	**$1.25**
Hawaii	**$1.20**
Connecticut	**$1.11**
Alaska	**$1.00**
MAINE	**$1.00**
Maryland	**$1.00**
Pennsylvania	**$1.00**
Illinois	**$0.98**
Vermont	**$0.93**
California	**$0.87**
Wisconsin	**$0.77**
Massachusetts	**$0.76**
Kansas	**$0.70**
Utah	**$0.695**
Oregon	**$0.68**
Arizona	**$0.58**
Indiana	**$0.555**
Ohio	**$0.55**
New Hampshire	**$0.52**

- **27-6 Increase tobacco cessation during pregnancy.**

27-6a Increase the proportion of Maine and US pregnant women who did NOT smoke during the last three months of pregnancy.

Healthy Maine 2010 Baseline: 80.9%
Healthy Maine 2010 Target: 95.0%





27-6b Reduce proportion of low income pregnant women who smoked during the last three months of pregnancy.

Medicaid Insured:
Healthy Maine 2010 Baseline: 36.8%
Healthy Maine 2010 Target: 20.0%

Tobacco use during and after pregnancy is very harmful to babies, and may result in an unhealthy low birth weight, sudden infant death syndrome (SIDS), pneumonia, and asthma in infants. Therefore, effectively helping pregnant women and their partners to quit early in pregnancy has important benefits to the entire family.

One of the leading factors associated with tobacco addiction is low income. Therefore, one of the highest priority populations for prevention and cessation interventions is those Maine people living with low income. Since Medicaid (MaineCare) Insurance is available for many low-income pregnant women, assuring they have access to effective cessation interventions is critical to their well-being and that of their families. Assuring their partners have this access and implementing effective prevention strategies with low income youth and young adults are also important strategies to achieving this objective.

- **26–19 (Developmental) Increase the proportion of youth and adults in the criminal justice system receiving substance abuse treatment in correctional facilities.**

One-third of all traffic fatalities in Maine are alcohol-related – an average of 62 deaths per year.

Nationally, criminal offenders frequently have high occurrences of a substance abuse history, have not received treatments; yet without treatment, have a greater likelihood of committing additional criminal offenses.

- **26–21 (Developmental) Reduce the treatment gap for alcohol and other drug problems.**

Availability of resources and access to clinically appropriate and effective treatment for alcohol problems vary between different areas of the State. This is especially true since effective treatments must be offered in different settings and modalities. For instance, the treatment for someone whose alcohol problem is acute versus intermittent or chronic is usually different. Likewise, the treatment for someone whose alcohol problem is mild is different than for someone whose problem is severe. Assuring access to culturally competent and linguistically appropriate services also is a challenge.

- **26–7 (Developmental) Reduce intentional injuries resulting from alcohol and illicit drug-related violence.**

The Uniform Crime Report lists alcohol and drug offenses (manufacture and possession) and homicides, but does not report homicides or intentional injuries where alcohol or drugs were involved. Therefore, this is a developmental objective.

During a 12-month period, the Maine Injury Prevention Program at the Bureau of Health found that 32% of the individuals who were considered at risk for suicide were using drugs or drinking at the time. This is consistent with national studies on the issue.

While the good news is that most kids don't drink, alcohol is still the drug of choice for youth both in Maine and around the nation. Thirty percent of Maine students grades 6 through 12 have consumed alcohol in the past 30 days, and that increases to about 49% for 12th graders. (2002 MYDAUS, Maine BDS, Office of Substance Abuse). Youth are at high risk for the detrimental effects of alcohol including cloudy judgment, poor academic achievement, early and unprotected sex, assault, car crashes, suicide, and drownings.

Nationally, an estimated 60% of homicide offenders were drinking alcohol when they committed the offense. Other studies reported in *Healthy People 2010* show that those arrestees testing positive for drugs are most often arrested for violent offenses such as robbery, assault, and weapons offenses. Two-thirds of victims who experienced violence by an intimate partner report that alcohol had been involved. And almost one-third of strangers who are victimized believe that the offender used alcohol.

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The following pages are a few public health concepts to assist in interpreting data presented in *Healthy Maine 2010*.

WHY ASSOCIATION DOES NOT NECESSARILY MEAN CAUSATION:

Epidemiology often looks at associations of events and diseases, for instance, exposure to cigarette smoking and developing lung cancer. Although studies showing associations are often reported in medical and public health journals and subsequently picked up by the media, an association does not necessarily mean causation. Four common possibilities that can explain an association:

1. The association can be due to chance. Tests of statistical significance are important in determining the probability the association is due to chance. Some examples include a T-test (which compares the means of two sets of data) and a chi-square test (which also compares the outcomes of two sets of data). P values are often measured from tests of statistical significance in order to assess the probability a test result occurred by chance. By convention, if the P value is less than or equal to 0.05, there is no more than a 5% or 1 in 20 probability the result is seen by chance and, therefore, the association is probably statistically significant. Even if an association is true and due to an effect causing a disease, the P value can be large because of a small sample size. Confidence intervals are used to show the range of data results within which the true values are assured to be. Generally, the width of the confidence interval is affected by the sample size – a larger sample size results in a narrower confidence interval.

2. The association can be due to a bias such as when non-comparable criteria are used to enroll participants (selection bias), or when non-comparable information is obtained from the different populations studied (observation bias), or when investigators elicit or interpret information differently (interviewer bias), or the participants report events in a non-comparable manner (recall bias).

Epidemiology is the study of the distribution and determinants of disease frequency in people. That is, epidemiology is concerned with the frequencies and types of illnesses in groups of people and with the factors that influence their distribution.

3. The association can be due to a mixing of effects between the exposure, the disease, and a confounding factor – a third factor that is associated with the exposure and that can affect the risk of developing the disease. Age is a common confounding factor, especially with many chronic diseases. Therefore, when comparing chronic disease rates between different time frames or geographical areas, the rates should be age-adjusted in order to make them comparable. Alternatively, disease rates only for pertinent age groups should be compared.

4. The event (exposure) may contribute toward causing the disease; i.e., the association is a causal one. Determining this requires addressing all of the above issues and also looking at the strength or magnitude of the association, the biologic credibility, consistency with other results, if the time sequence makes sense, and if there appears to be a dose-response relationship.

Relative Risk is a common measure used to show the magnitude of an association, and is often examined in making a judgment pertaining to causality. Relative risk can be expressed in different ways, depending on the study design. For instance, in a Cohort study (in which participants are selected based on their exposure or non-exposure to a possible risk factor for a disease), relative risk is expressed as the incidence of a disease in those exposed to a possible risk factor divided by the incidence of the same disease in those not exposed to the risk factor. In a Case Control study, (in which the participants are selected based on their disease status), the relative risk can be expressed as an Odds Ratio. The Odds Ratio is the ratio of the odds of exposure among the cases to that among the controls.

Hennekens, C , J Buring, *Epidemiology in Medicine*, Little, Brown, and Company, 1987

SENSITIVITY AND SPECIFICITY

- Screening tests are evaluated based on their sensitivity and specificity.
- A test with high sensitivity means it has a high ability to assure that people who have the disease will test positive and, therefore, will have a high likelihood to avoid missing a true case of the disease.
- A test with high specificity means that it has a high ability to assure that a negative test result means people do not have the disease.
- Sensitivity and specificity are interrelated. Loosening the criteria that makes a test positive means that more people who have the disease will test positive (increased sensitivity), but so will more people who do not have the disease (decreased specificity, resulting in false positive results).
- And, conversely, making more stringent the criteria that makes a test positive means that more people who actually have the disease will test negative and their disease will, therefore, be missed (decreased sensitivity, resulting in false negative results); yet more people who test negative will actually not have the disease (increased specificity).

WHY CAN'T WE SIMPLY COMPARE CRUDE DISEASE RATES?

One common problem comparing disease or death rates between populations is that the groups may differ with respect to characteristics such as age, sex, or race that may affect the overall rate of disease. These differences can make crude rates not comparable. For instance, crude death rates due to cancer in the US have dramatically increased over the past 100 years. However, the population has also aged. Since cancer mortality rates rise dramatically with age, the higher crude death rates seen now are at least in part due to overall aging of the population.

MEDIAN AND MEANS

Median is the 50th percentile, or the middle of the data, the value at which half of the observations are above and half are below.

Mean is the average of the data.

When can medians and means be very different from one another when used to describe the same data? A common example is when there are extreme values, or outliers. For instance, if five people's ages are: 34, 35, 36, 37, and 80, the median is 36 and the mean is 44. Therefore, the advantage of using the median is that it is not affected by extreme values. However, this can also be a disadvantage because it provides no information about distribution of the values since its derivation is based on rank.

THERE ARE TWO WAYS TO MAKE TWO POPULATIONS COMPARABLE WHEN KNOWN CHARACTERISTICS ARE DISTRIBUTED DIFFERENTLY BETWEEN THEM:

1. Compare category-specific rates. For example, one can compare cancer mortality rates in 1900 and 2000 for each age group. Age-specific rates for cancer deaths tended to increase only slightly.

2. Adjust the rates for the characterization; in other words, perform standardization. This can be done by direct and indirect methods, but both methods use a weighted average of category-specific rates. They differ in the source of the weights and rates used. In indirect standardization, rates from a standard population are applied to weights in the study group. In direct standardization, category-specific rates observed are applied to a single standard population. Often the US population for a census year is used as a standard population for comparison.

RATIO, PROPORTION, PERCENTAGE, RATE

Ratio is a general term that means there is a numerator (the top number in a fraction) and a denominator (the bottom number in a fraction). Types of ratios include proportions, percentages, and rates.

Proportion is a ratio in which the population in the numerator is also included in the denominator. An example is proportion of women giving birth who have a C-section – 25 out of 100. Proportions are often expressed as a percentage. The above example would be 25%.

Rate is a ratio in which a measure of time is included in the denominator. An example is the incidence (number of new cases) of breast cancer in a given year.

Ratios, proportions, and rates can easily be confused because they are often used interchangeably, though technically they often should not be. In order to interpret the data correctly, the most important factor is determining exactly what constitutes the numerator and the denominator.

CONFIDENCE INTERVALS

The Confidence Interval (CI) is a range of values that represents the true value of a statistic. Most often, a 95% CI is given, which means that there is a 95% chance the range given includes the true value. If the CI is very wide, the estimate is less reliable. The main factor affecting the width of the CI is the number of people surveyed or otherwise included in the population being measured. So, for small surveys, the CIs are often wide.

When comparing data points such as the answers to survey questions between different age groups or genders, one often looks at the CIs to decide whether or not there are true differences. In general, if the CIs overlap, the numbers are not statistically different. One common method for dealing with wide and overlapping CIs is to compile multiple years of data together to create a sufficiently large sample size.

INCIDENCE AND PREVALENCE

In chronic diseases, we commonly measure disease rates with two different methods:

Incidence: the number of newly diagnosed cases of a disease occurring in a population in a given period of time (usually a year).

Prevalence: the total number of cases of a disease in a population at a given point or period in time.

Why is it important to distinguish between these two measures? Incidence gives us a barometer of how many new cases of a disease are being detected, while prevalence gives us a barometer of how long people are living with a disease. For instance, cancer *incidence* rates are declining across the United States, although not in Maine. Incidence may be declining due to a reduction in causative factors for cancer, such as tobacco addiction. Cancer *prevalence* rates are rising across the nation, which may be due to improved treatments leading to longer survival.

For short-lived diseases, in which people either die or are cured quickly, incidence and prevalence are very similar. Examples include many acute infectious diseases such as bacterial meningitis or bacterial diarrhea.

Some Major Maine Public Health Data Sets

BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM (BRFSS)

BRFSS is an ongoing State-based system of health surveys conducted by telephone interview using random digit-dialed probability samples of adults ages 18 years and over. Conducted and collected in Maine by the Bureau of Health, BRFSS is funded and analyzed by the Centers for Disease Control and Prevention (CDC).

The national sample size, which is increasing annually, yielded over 200,000 interviews in 2001. It should be noted that national BRFSS data is an average of each state's weighted data and not a weighted average.

Maine's sample size was over 2,400 in 2001, which is up from less than 1,700 in 1999, representing over a 40% increase. Major topics include alcohol and tobacco use, physical activity, nutrition, screening for certain cancers, health status, health care access, hypertension awareness, and diabetes awareness. Some topics are asked annually, some biennially, and others at the discretion of each state.

In 2000, MaineHealth funded extra surveys to be conducted as part of BRFSS in order to collect more localized data. Over 4,600 people were surveyed that year. The Bureau of Health worked on analyzing the data, and as a result of this collaboration, there is county-level BRFSS data for 10 out of 16 counties in Maine for 2000.

Data from BRFSS is available on-line at www.cdc.gov/brfss or www.state.me.us/dhs/bohodr/brfsspge.htm for county-level data. Maine's coordinator for BRFSS is Judith Graber at the Bureau of Health (207) 287-1420 or judith.graber@state.me.us.

INFECTIOUS DISEASE REPORTS

Infectious disease reporting requirements are established by statute. Maine licensed health care providers and facilities are required to report approximately 50 diseases to surveillance professionals to the Bureau of Health's Division of Disease Control. These reports are used to help identify any outbreaks and to assure that appropriate interventions are being implemented to prevent the spread of diseases. Data that are stripped of personal identifying information are available in annual reports as well as through the Centers for Disease Control and Prevention that collects this aggregate data from each state and reports it in their Morbidity and Mortality Weekly Report. For more information, contact the Bureau of Health's Division of Disease Control at (207) 287-3960.

MAINE CANCER REGISTRY

Created in the 1980s, the Maine Cancer Registry, housed in the Bureau of Health, collects statewide cancer incidence and mortality data; identifies cancer trends among Maine's citizens; and responds to queries and data requests from researchers, other agencies, and the public. The goal of these activities is to facilitate cancer prevention and control. The Cancer Registry may be contacted at (207) 287-5272.

MAINE HEALTH DATA ORGANIZATION (MHDO)

MHDO was established as an independent executive agency in 1996 to continue the data collection function of the former Maine Health Care Finance Commission. Although the original data collection focused on hospital inpatient (1986) and non-hospital ambulatory data (1990), MHDO is now moving toward collecting all health care claims data from all health care providers and all payers. Pertinent web sites include: www.healthweb.state.me.us for an interactive health data site or www.mhdo.state.me.us for MHDO's homepage.

MAINE YOUTH DRUG ALCOHOL USE SURVEY (MYDAUS)

MYDAUS is conducted by the Maine Office of Substance Abuse, Department of Behavioral and Developmental Services. It has been conducted periodically since 1988. The 1998 and 2000 surveys were administered to about 22,000 and 30,000 students respectively in grades 6–12. However, since the survey did not use a random sample of schools, the data collected was not representative of all schools or students in the State, just those who completed the survey. Methodologies used by this survey have varied between the different years it has been conducted, so the ability to compare them is limited. MYDAUS data can be found on-line at http://www.state.me.us/bds/osa/ostats.htm.

PREGNANCY RISK ASSESSMENT MONITORING SYSTEM (PRAMS)

PRAMS is an ongoing sample survey conducted since 1987 and administered by the Bureau of Health to Maine mothers within a few months after delivery. The goal of this survey is to provide State-specific information that assists in program and policy planning that will improve the health of mothers and infants. Questions are asked about experiences before, during, and after pregnancy and include such items as tobacco and alcohol use, breastfeeding, prenatal care, health insurance coverage, infant care, and exposure to violence. PRAMS is funded by the Centers for Disease Control and Prevention (CDC) and is conducted in most but not all states. The average sample size in Maine ranges from 1,500 to 2,000 annually. Marty Henson is Maine's coordinator for PRAMS. Information may be obtained by calling (207) 287-5445 or by visiting the following Web site: http://www.state.me.us/dhs/bohodr/index.htm.

VITAL RECORDS

Vital records are reported to the Bureau of Health and include records of births, deaths, fetal deaths, marriages, and divorces. Although Maine became a state in 1820, vital records were not collected routinely by the State until 1892. Approximately 42,000 events are currently registered each year. Information can be obtained by calling (207) 287-5500 or visiting http://www.state.me.us/dhs/bohodr/index.htm.

YOUTH RISK BEHAVIOR SURVEY (YRBS)

YRBS uses a questionnaire administered to a sample of Maine high school students (and middle school students grades 6–8 starting in 1999) gathered every two years since 1993. YRBS is conducted in other states; the Centers for Disease Control and Prevention (CDC) funds and analyzes the survey. With a sample size of about 2,200, the survey collects data on six categories of health risk behaviors: injury, tobacco use, alcohol and other drug use, sexual behavior, diet and nutrition, and physical activity. In Maine, the Department of Education administers the survey. Information collected from YRBS is used to more effectively address health issues our youth are facing.

When the response rate has an overall response rate of 60% or higher, the CDC statistically weighs the results so that the numbers can be generalized to all public schools for the grades surveyed. When the overall response rate is below 60%, the CDC cannot perform such statistical analysis, and the data applies only to the students who actually completed the questionnaire. Maine's YRBS data for 1993 and 1999 was unweighted, so information cannot be compared reliably with data from 1995, 1997, and 2001.

Data from the YRBS is available on-line at http://www.mainecshp.com/survey.html. National figures can be found at http://www.cdc.gov/needphp/yrbs/indext.htm.

THE MAINE ADULT TOBACCO SURVEY (MATS)

The Maine Adult Tobacco Survey (MATS) of 5,000 Maine adults, ages 18 and over, was conducted from August 1999 to May 2000 by the Maine Bureau of Health, Partnership For A Tobacco-Free Maine. The sample was selected from six regions in the state. Each region encompasses two to four counties of the state, matched on demographic and economic characteristics. The respondents were randomly selected and interviewed by telephone on Cigarette Use, Cessation, Use of Other Tobacco Products, Environmental Tobacco Exposure and Policies, Tobacco Beliefs and Perceptions, and Demographics. A modified version of the survey will be conducted in 2003. For more information on the MATS, please contact Dorean Maines at the Maine Bureau of Health at (207) 287-3268.

THE MAINE YOUTH TOBACCO SURVEY (MYTS)

The Maine Youth Tobacco Survey (MYTS), a school-based survey of Maine youth in grades 6–12, is conducted as part of the Independent Evaluation of the Partnership For A Tobacco-Free Maine. The survey is a self-administered questionnaire developed to obtain the opinions, attitudes, beliefs, and behaviors of Maine youth with regard to tobacco use and related behaviors. The instrument is more extensive but similar to the core Youth Tobacco Survey that has been implemented by the Center for Disease Control and Prevention (CDC) throughout the US. The survey was conducted in Maine in 1999 and 2001, using a slightly shorter version of the survey for students in grades 6–8. A random sample of 120 schools was selected that was representative of all middle and high schools from across the State. Of these 120 schools, approximately 100 schools participated in the surveys. The entire population of the school completed the survey in the selected schools, resulting in sample sizes of nearly 25,000 students. Weighting of the sample was done for the school level and for the student level. Another youth survey is planned for 2004. For more information on the MYTS, please contact Dorean Maines at the Maine Bureau of Health at (207) 287-3268.

Some Helpful Government-Related Health Websites

Aging
National Aging Information Center
http://www.aoa.gov/naic

AIDS/HIV
CDC National Prevention Information Network (NPIN)
http://www.cdcnpin.org

Alternative Medicine
National Center for Complementary and Alternative Medicine (NCCAM) Clearinghouse
http://nccam nih.gov

Asthma
National Heart, Lung, and Blood Institute (NHLBI) Health Information Center
http://www nhlbi nih.gov

Centers for Disease Control and Prevention (CDC)
http://www.cdc.gov

Consumer Information
Consumer Information Center
http://www.pueblo.gsa.gov

Criminal Justice
National Criminal Justice Reference Service
http://www ncjrs.org

Deafness/Communication Disorders
National Institute on Deafness and Other Communication Disorders (NIDCD) Information Clearinghouse
http://www nidcd nih.gov

Disability/Rehabilitation
National Center for the Dissemination of Disability Research (NCDDR)
http://www ncddr.org

The New Freedom Initiative for People with Disabilities
http://www.disabilities.gov

Disease Prevention/Health Promotion
Centers for Disease Control and Prevention (CDC)
http://www.cdc.gov

Healthfinder
http://www healthfinder.gov

National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP)
http://www.cdc.gov/nccdphp

Drug Policy
White House Office of National Drug Control Policy
http://www.whitehousedrugpolicy.gov/policy/index htm

Environmental Health
Environmental Protection Agency
http://www.epa.gov/natlibra/hqirc/about.htm

Family Planning
Office of Population Affairs
http://www hhs.gov/opa/clearinghouse html

Food and Drug Safety
Food and Drug Administration
http://www fda.gov

Health Care Policy and Research
Agency for Healthcare Research and Quality (AHRQ)
http://www.ahrq.gov

National Information Center on Health Services Research and Health Care Technology (NICHSR)
http://www nlm nih.gov/nichsr/nichsr html

Health Statistics
National Center for Health Statistics
http://www.cdc.gov/nchs

Highway Safety
National Highway Traffic Safety Administration (NHSTA)
http://www nhsta.dot.gov

Homelessness
National Resource Center on Homelessness and Mental Illness
http://www.prainc.com/nrc

Infectious Disease & Immunization
National Institute of Allergy and Infectious Diseases (NIAID)
http://www niaid nih.gov/

Injury Prevention
US Consumer Product Safety Commission (CPSC)
http://www.cpsc.gov

Kidney/Urologic Diseases
National Kidney and Urologic Diseases Information Clearinghouse (NKUDIC)
http://www niddk nih.gov/health/kidney/kidney.htm

Lead Poisoning
National Lead Information Center
http://www.epa.gov/lead/nlic htm

Library Services
National Library of Medicine
http://www nlm nih.gov

Limited English Proficiency
US Department of Education
http://www.ed.gov/offices/OCR

Some Helpful Government-Related Health Websites

Maine Addresses
Maine State Government
http://www maine.gov

Department of Human Services
http://www.state me.us/dhs

Bureau of Health
http://www.state me.us/dhs/boh
http://www mainepublichealth.org

Bureau of Medical Services (MaineCare)
http://www.state me.us/bms

Department of Behavioral and Developmental Services
http://www.state me.us./bds

Department of Environmental Protection
http://www.state me.us/dep

Maine Center for Public Health
http://www mcph.org

Healthy Maine Partnerships
http://www healthymainepartnerships.org

Maternal/Child Health
Maternal Child Health Bureau, Health Resources and Services
http://www mchb hrsa.gov

National Center for Education in Maternal and Child Health
http://www ncemch.org

National Maternal and Child Health Clearinghouse (NMCHC)
http://www.ask hrsa.gov

Medicaid
Centers for Medicare and Medicaid Services (CMS)
http://www.cms hhs.gov

Medicare
Center for Medicare and Medicaid Services (CMS)
http://www medicare.gov

Mental Health
Center for Mental Health Services' Knowledge Exchange Network
http://www mentalhealth.org

National Institute of Mental Health (NIMH)
http://www nimh nih.org
http://www.samhsa.gov

Minority Health
Office of Minority Health
http://www.omhrc.gov

Nutrition
Food and Nutrition Information Center
http://www nal.usda.gov/fnic/

Occupational Safety
National Institute for Occupational Safety and Health (NIOSH)
http://www.cdc.gov/niosh

Oral Health
National Oral Health Information Clearinghouse (NOHIC)
http://www nohic nidcr nih.gov

Osteoporosis
NIH Osteoporosis and Related Bone Diseases – National Resource Center
http://www.osteo.org

Physical Fitness
President's Council on Physical Fitness and Sports
http://www fitness.gov

Primary Care
Health Resources and Services Administration (HRSA)
http://www.ask hrsa.gov

Rural Health
Rural Information Center Health Service (RICHS)
http://www nal.usda.gov/ric/richs

Substance Abuse
Substance Abuse and Mental Health Services Administration
http://www.samhsa.gov

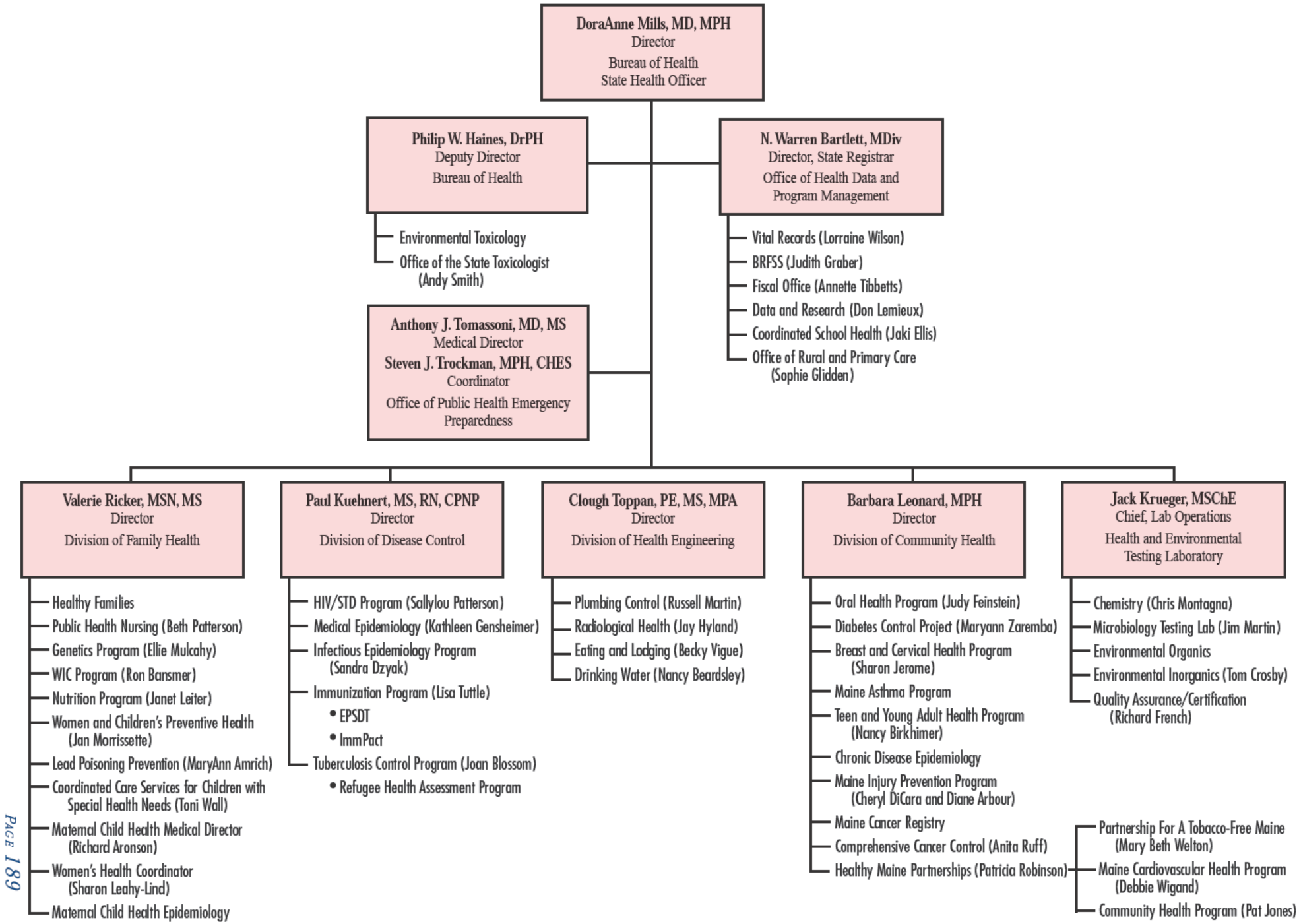
Tobacco
http://www.cdc.gov

Veterans Affairs
http://www.va.gov

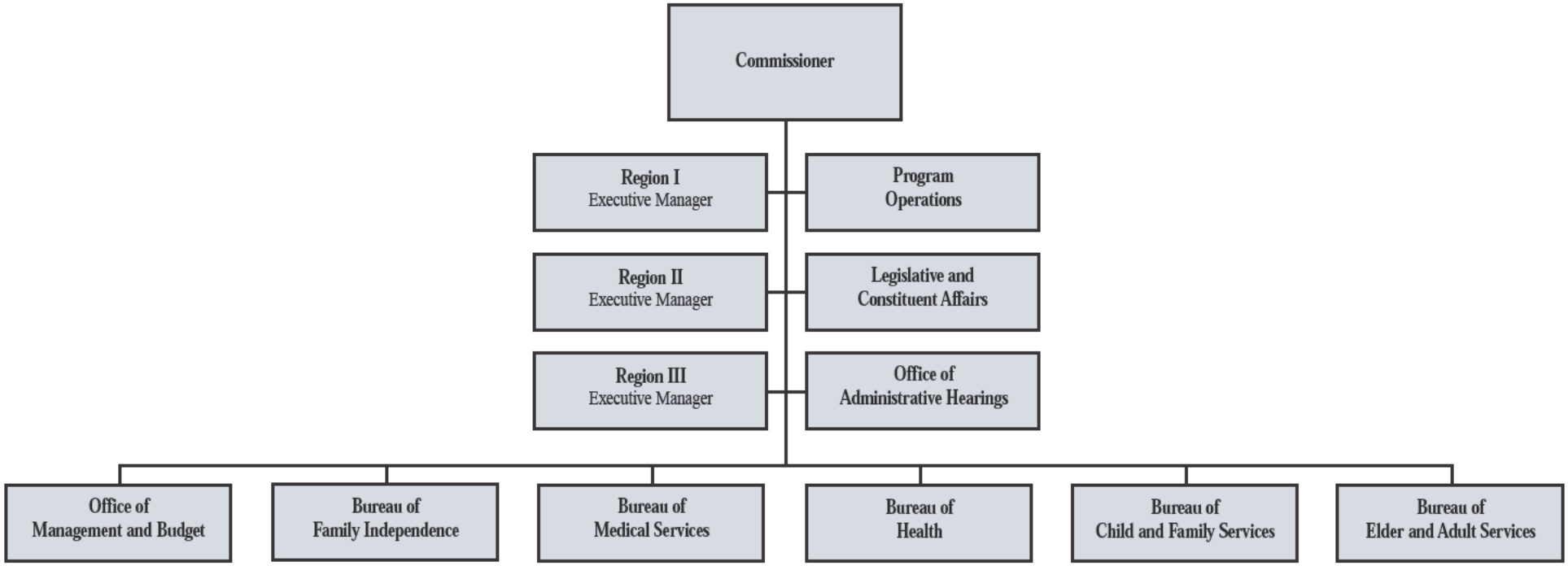
Violence Prevention
National Youth Violence Prevention Resource Center (NYVPRC)
http://www.SAFEYOUTH.org

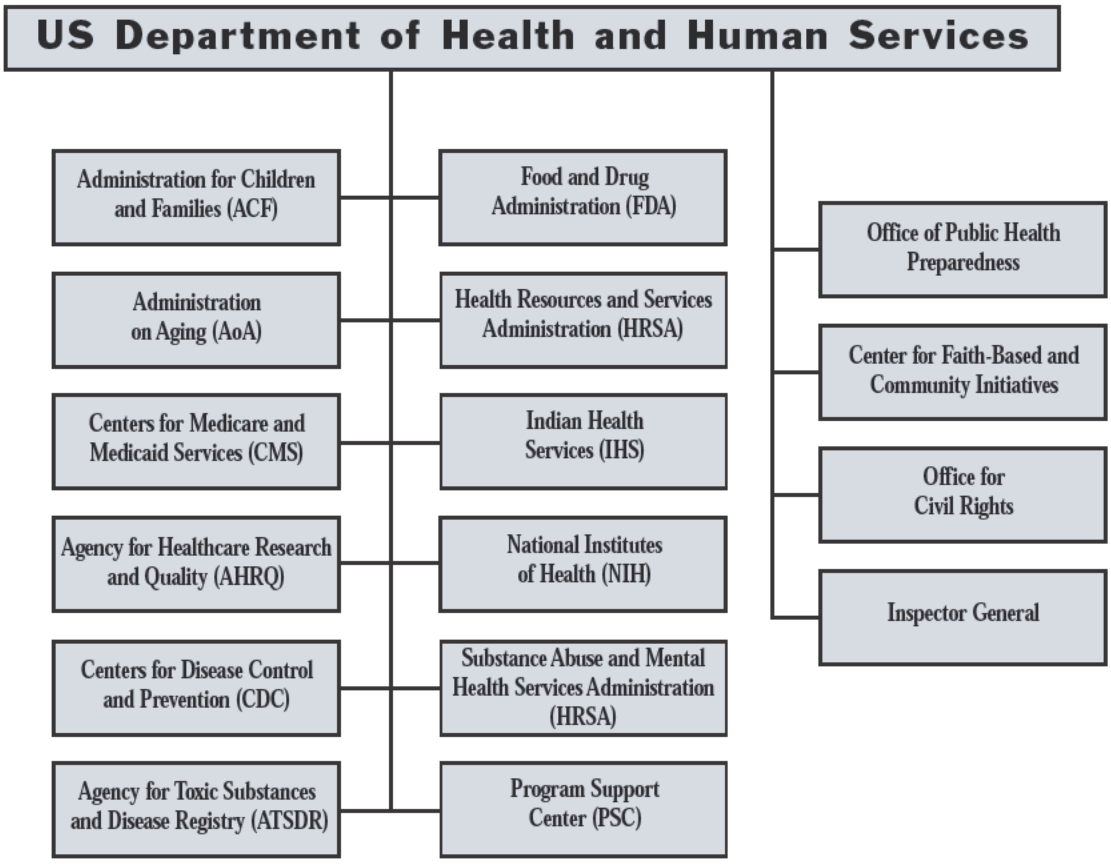
Women's Health
National Women's Health Information Center (NWHIC)
http://www.4woman.gov

Bureau of Health



Maine Department of Human Services




US Department of Health and Human Services
Administration for Children and Families (ACF)
Administration on Aging (AoA)
Centers for Medicare and Medicaid Services (CMS)
Agency for Healthcare Research and Quality (AHRQ)
Centers for Disease Control and Prevention (CDC)
Agency for Toxic Substances and Disease Registry (ATSDR)
Food and Drug Administration (FDA)
Health Resources and Services Administration (HRSA)
Indian Health Services (IHS)
National Institutes of Health (NIH)
Substance Abuse and Mental Health Services Administration (HRSA)
Program Support Center (PSC)
Office of Public Health Preparedness
Center for Faith-Based and Community Initiatives
Office for Civil Rights
Inspector General

Highlights of *Healthy Maine 2010* Evolution

January 2000:
Healthy People 2010 is unveiled at a national conference. Several from Maine attend and return with ideas for *Healthy Maine 2010.*

Summer 2000:
Bureau of Health holds a stakeholders' meeting with about 50 in attendance to obtain input to the process for creating *Healthy Maine 2010.*

September 2000:
Healthy Maine 2000: A Decade in Review is printed by the Bureau of Health in order to communicate final progress on Healthy Maine 2000 goals and objectives.

October 2000:
Maine Public Health Association's Annual Conference in collaboration with the Bureau of Health officially kicks off the *Healthy Maine 2010* Initiative. Participants attend priority area break-out sessions, give input to the content of *HM2010*, and sign up for work groups.

October–January 2001:
Members for Priority Area Work Groups are recruited through the Maine Public Health Association annual meeting, Bureau of Health mailing lists (a mailing to organizations representing disparate populations), newsletters, and Listservs.

January–June 2001:
Priority Area Work Groups meet, each for a half day, to discuss and choose goal and objectives for each focus area, as well as to discuss health disparity and other major issues that should be included in *Healthy Maine 2010* for that priority area. Some provide this input by email. About 450 from across Maine participate.

January 2001–September 2002:
A Listserv for work group members is created and maintained by Sharon Leahy-Lind for each Priority Area Work Group for periodic updates, as well as for ongoing input.

June–September 2001:
Work Group input is reviewed and Dr. Mills prepares the first drafts of Priority Area Chapter narratives for *Healthy Maine 2010: Longer and Healthier Lives.* Sharon Leahy-Lind and Bureau of Health staff begin data collection efforts.

August–October 2001:
Chapters are sent by email over the priority area Listservs to all Work Group Leaders and Members, who in turn provide edits and other suggestions for the first drafts of Priority Area Chapters.

September 2001–March 2002:

HM2010 work is, for the most part, put on hold while Bureau of Health and many other Maine health and public health professionals work to prepare Maine for a possible weapons of mass destruction attack, and respond to national anthrax attacks. Data gathering and analysis continues during this time.

April–July 2002:

- Dr. Mills incorporates edit suggestions into *Healthy Maine 2010: Longer and Healthier Lives*;
- An additional round of reviews and submission of additional edit suggestions of chapter text by Work Group Leaders are conducted and then incorporated by Dr. Mills;
- Data for objectives are collected and analyzed by Sharon Leahy-Lind with assistance from Work Group Leaders and a number of Bureau of Health staff;
- Preliminary graphs for each objective are created by Sharon Leahy-Lind;
- 2010 targets are chosen for each objective by Work Group Leaders and pertinent experts;
- Some preliminary information for *Healthy Maine 2010: Opportunities for All* is collected and some interviews with subject experts are conducted by Sharon Leahy-Lind and other staff.

June–September 2002:

- First draft of *Healthy Maine 2010: Opportunities for All* is written by Dr. Mills using input from gathered information, Bureau of Health data resources, some Work Group Leaders and Members, and a number of statewide experts.
- CD&M Communications Team does layout and creates graphics for a first full draft of *Healthy Maine 2010: Opportunities for All.*
- Work Group Leaders, pertinent Bureau of Health staff, and all participants and contributors to this complimentary publication review and provide edit suggestions to *Healthy Maine 2010: Opportunities for All.* Dr. Mills edits and incorporates these suggestions into an updated draft.

August–October 2002:

- CD&M Communications Team puts together first drafts of Healthy Maine *2010: Longer and Healthier Lives* with chapter text and objective graphs. Work Group Leaders and some other significant contributors provide edit suggestions. These edits are incorporated by Dr. Mills, along with three additional rounds of edits.
- Second round of layouts is conducted by the CD&M Communications team, and a second round of edits is conducted of *Healthy Maine 2010: Opportunities for All* by Dr. Mills.

November–December 2002:

- Final edits are done on both companion books. They are printed.
- 7,000 order forms are sent across the State, notifying people how to obtain copies of both *Healthy Maine 2010: Longer and Healthier Lives* and *Healthy Maine 2010: Opportunities for All.*

“If you think you are too small to make a difference, try sleeping in a closed room with a mosquito.”

—African Proverb

Healthy Maine 2010 chronicles the health issues currently faced by our population and, most importantly, outlines changes that will help all of Maine's people to live longer and healthier lives. Created with input from over 500 people from across the State, *Healthy Maine 2010* is a tool available for anyone to learn more about how they can improve the health of Maine people and communities by the end of this decade.

Healthy Maine 2010: Longer and Healthier Lives is a roadmap – providing guidance to improve the health of Maine people.

Healthy Maine 2010: Opportunities for All is a look at the specific health issues faced by the many different groups of people who live in Maine.

Healthy Maine Partnerships
Bureau of Health, Department of Human Services

Angus S. King, Jr., Governor
Kevin W. Concannon, Commissioner