



November, 2008

Dear Maine Legislator:

With support from the Bingham Program, the Maine Public Health Association is pleased to present you with this Public Health Education booklet. We hope that you find the information on our public health system and emerging issues timely and informative in your work. As legislators, you are an important part of our public health system – helping to create state policy and also supporting our public health system so we may maximize our resources and optimize health of all Mainers.

Most people don't realize the impact that Public Health has on their lives, but there are examples all around you. Water and air quality, emergency services and preparedness, prevention of chronic disease, animal control and lead poisoning prevention are just a few examples of public health. There are factors that determine your health that you can control, and there are factors that you cannot... it's Public Health that fights both of those battles. Public Health isn't something that matters to someone else—Public Health is your health and my health too.

Prevention is the cornerstone of public health and you will see that theme throughout these materials. *Public Health interventions save lives and money.* The cost of preventing disease is far less than the cost of treating the disease. Thank you in advance for reading the enclosed materials and for staying informed on topics that affect all of us in Maine. Though there are many, many more sectors and areas of public health, we hope the enclosed will give you a brief introduction into public health. For more information about this booklet, public health in Maine or about the Maine Public Health Association, please e-mail info@mainepublichealth.org or visit www.mainepublichealth.org

Sincerely,

A handwritten signature in black ink that reads "Kristina Pettingill". The signature is written in a cursive, flowing style.

Kristina Pettingill, MPH
Executive Director



Maine's Public Health System

Public Health in Maine

Our public health system in Maine assures that we have safe drinking water, are prepared to respond to disasters, and have community-based prevention programs to decrease injury, disease, and premature death. Public health protects and promotes the health of entire populations and communities by providing essential services designed to:

- Prevent epidemics and the spread of disease
- Protect against environmental hazards
- Prevent injuries
- Promote and encourage healthy behaviors
- Respond to disasters and assist communities in recovery
- Assure the quality and accessibility of health services
- Develop policies in the public's interest
- Assess and monitor the health of populations

The Maine Center for Disease Control and Prevention within the Department of Health and Human Services has the primary responsibility for public health in our state and serves as the hub of our public health system. This system also includes public and private organizations, community coalitions and two municipal health departments. In addition, each town is required to have a local health officer (LHO) who is responsible for a number of duties defined in statute, mostly centered on reporting risks to other entities for action. Response to these hazards is primarily the domain of the state health department and code enforcement or other town offices.

A Brief History

Unlike most other states in this country, Maine does not have a network of local public health agencies across the state prepared to deliver the essential public health services. Separate federal and state grants and contracts – 550 at one count -- fund activities by a myriad of organizations, which can make coordination across programs a challenge. Although successful coalitions have formed to address specific problems, these organizations lack governmental authority and may not be representative of all constituencies. Some are organized geographically, while others are statewide efforts to address a specific problem. Despite successes, the current system lacks accountability and capacity to effectively provide quality services to all people living in Maine.

Over the past several years, a number of efforts have been underway to help address these challenges and to ultimately strengthen Maine's public health system and the health of our state. Maine policymakers have made a serious commitment to furthering the health of their citizens, by assuring that tobacco settlement funds support improving the health of Maine's citizens, through the Fund For a Healthy Maine. The legislature supported the emergence of regionally-defined coalitions with cross-cutting community health missions. While this improved coordination among programs in active communities, it still left geographic gaps and uneven access, while perpetuating duplicative parallel systems for funding.

In 2007, the state sought to build on the success of partnerships by coordinating several major grants programs into a "braided" funding stream, and calling on local partnerships—largely based in existing coalitions - to develop single consolidated proposals. This initiative was designed to assure that every community was served by a partnership, and it took the first step in building a system to coordinate the flow of resources and information between these local entities and the state. These Healthy Maine Partnerships (HMPs) were asked to develop a single consolidated proposal that included funding from chronic disease prevention programs, coordinated school health and the office of substance abuse.

This step creates a structure for more equitable and efficient coordination between state and local partners for community health services, but it is not, when all is said and done, a fully functioning public health system. The state and local agencies formed the Public Health Work Group (PHWG) to address the challenge of designing a public health infrastructure for the state that would assure the ten essential public health services (see chart for more detail), define accountability and responsibility across programs, and create channels for communication between levels and across regions.

The plan, offered to the legislature in January, 2008 creates eight public health districts to coordinate between the local partnerships, with their service responsibilities, and the state public health system, with responsibilities including planning, policy-making and enforcement. The Maine CDC is to define staff roles and responsibilities for each of the districts. At the same time, local HMPs as well as other entities in the districts are expected to form district coordinating councils (DCC) to serve as the interface between communities and the state. The PHWG also recommended streamlining and strengthening the role of the LHO. The PHWG has now been replaced by a statewide coordinating council (SCC).

Much work lies ahead. *The system was designed with no additional resources, and in the face of Maine's current budget crisis, it is more important than ever to help decrease costs through prevention.* It is not clear how the district coordinating councils will be sustained, either with funding or staff. How roles and authority will be distributed across levels, while parsed out in the PHWG plan, will likely be renegotiated in practice.

The new system was designed to improve the efficiency, fairness, and completeness of public health provision in the state while building on current strengths—strong communities and coalitions, and state leaders who treasure the health of their citizens.

For more information about your legislative district's profile and health status, please visit:

http://www.maine.gov/dhhs/boh/maine_dhhs_district_health_profiles.htm



Chronic Disease

Chronic diseases, such as heart disease, stroke, obesity, cancer, diabetes, asthma, and dental disease, are among the most prevalent, costly, and *preventable* of all health problems.

The Challenge in Maine

- Heart disease, cancer, and stroke are the three leading causes of death in Maine.
- In 2007 Maine led the nation in percentage of adults who have been told they currently have asthma.
- In 2000, there were 47.6 dentists per 100,000 population in Maine, well below the national rate of 63.6.
- In Maine, it is estimated that there were more than 844,000 cases of seven common chronic diseases—cancers, diabetes, heart disease, hypertension, stroke, mental disorders, and pulmonary conditions such as asthma—in 2003. In that same year Maine spent \$1.4 billion to treat these conditions.
- The Milken Institute State Chronic Disease Index ranks all 50 states by concentration of chronic disease. In 2007 Maine's position on this scale was 43rd, meaning that Maine has more reported cases of chronic disease per capita than 42 other states.

Best Practices

The Trust for America's Health estimates that an investment of \$10 per person per year (estimated \$13 million per year) in community-based strategic disease prevention programs would lead to an annual net savings of \$98 million in Maine in five years, resulting in a 7.5 to 1 return on investment.

There is a relatively small set of factors underlying most chronic disease: tobacco addiction, physical inactivity, poor nutrition, excessive alcohol use, elevated cholesterol, elevated blood pressure, and in some cases environmental pollutants such as radon, arsenic, secondhand smoke, and ozone. Poor oral health is frequently a contributing factor as well. With programs aimed at reducing these factors, as well as improving screening, chronic disease self-management, and ensuring access to quality health care based on evidence-based clinical guidelines, Maine's chronic disease burden can be greatly reduced.

Successes

- From 1997 to 2007 Maine saw a 64% drop in smoking rates among high school students (39.2% to 14.0%) and from 1999 to 2007 a 73% drop in smoking rates among middle school students (21.0% to 5.7%).
- The number of coronary heart disease deaths in Maine fell by 35% between 1997 and 2004.
- Among all states, Maine has the highest percentage (89.1%) of women over 17 years of age receiving pap smears in the past three years.

Emerging Issues

On our current path, Maine will experience a dramatic increase in chronic disease (and the economic costs associated with treating and managing chronic disease) in the next 20 years. But there is an alternative path. By making reasonable improvements in preventing and managing chronic disease over the next 15 years, research indicates that we can avoid 204,000 cases of the most common chronic conditions in 2023.

Maine is the oldest state in the nation, with a median age of 40.6 and an elderly population growth rate that is currently more than double that of total population growth. Although the incidence, prevalence, and burden of chronic disease increase with age, poor health is not an inevitable consequence of aging. Programs that provide seniors with regular physical activity, healthy nutrition, and regular healthcare can reduce the impact of disease and mitigate the cost of long-term care for older adults.

For more information, please visit: <http://maine.gov/dhhs/boh/hmp/> or <http://www.healthymainepartnerships.org/>



Environmental Health

The Challenge in Maine

Chronic health problems like cancer, learning disabilities and infertility affect a growing number of Maine families each year. Meanwhile chemicals known to cause each of these problems are routinely used in common consumer products like baby bottles, electronics, cosmetics, toys and plastics. Each year, exposure to toxic chemicals in children leads to \$55 billion in health care costs nationally.

A study in 2007 found an average of 36 toxic chemicals (of 71 tested) in the bodies of Maine people. Scientific research shows that these chemicals are hazardous and that even tiny amounts may threaten human health. Many are slow to degrade and build up to high levels in the food chain. Babies in the womb and young children are especially vulnerable because they are still growing. Animal and human studies have linked these chemicals to learning and developmental disabilities, endocrine system damage, changes in sexual development, reproductive harm (including decreased sperm count in men), low birth weight and some cancers.

Best Practices

Maine has become a national leader in protecting public health and the environment by replacing toxic chemicals in everyday products with safer alternatives. Over the last decade, Maine legislators have passed laws to eliminate mercury in thermometers and thermostats, lead in toys and children's jewelry, arsenic in pressure-treated wood, and PBDE fire retardants in furniture and televisions. In 2008, the Maine Legislature enacted the Kid Safe Products law by an overwhelming bipartisan margin. Based on the recommendations of a Governor's Task Force, this landmark legislation requires manufacturers to disclose their use of the most dangerous chemicals in consumer products and authorizes the State to require safer alternatives whenever found to be available, effective and affordable.

Solving the problem in Maine

Below are steps that every Mainer should be taking to protect ourselves and our children

- **PREVENT HARM**- speed efforts to replace dangerous chemicals with safer alternatives and expand the public's right to know when toxic chemicals are used in products and materials.
- **PROTECT OUR KIDS**- protect the health of Maine children by defending Maine's new Kid Safe Products law against attack and ensuring it has the resources to succeed.
- **SHARE RESPONSIBILITY**- ask industry to prove products are safe for people and the environment rather than waiting for government to prove harm. Make polluters pay the costs of protecting environmental public health from hazardous chemicals.
- **BUILD A GREEN ECONOMY**- create good jobs and open new markets for Maine business by investing in expanded use of available green technology, and in research and development of safer, environmentally friendly products, such as plastics from potatoes.

For more information

Please contact MPHA's partner, the Environmental Health Strategy Center at 207-939-7333 or visit <http://www.preventharm.org/>



Emergency Preparedness and Disaster Readiness in Maine

The Challenge in Maine

History has shown that Maine is extremely vulnerable to natural disasters or weather related events. Each year a hazard analysis is conducted at all levels of the state of Maine (required by the Federal Emergency Management Agency, FEMA), and natural disaster always tops the list. This is mainly due to the geography of Maine and the largely unprotected coastline. Natural disasters can be extremely serious not only because of the physical damage that they can produce, but because of the public health issues they can create after the event such as an infectious disease.

Hazardous Materials

In Maine we are also extremely vulnerable to hazardous materials incidents, both accidental and intentional. Due to the large number of chemicals traveling in and out of Maine each year to support our industry, the risk of an accident is extremely high. A hazardous materials release is extremely dangerous, and could have lasting public health related impact on the public in Maine. A detailed report was completed in 2006 in the greater Portland area detailing many of the hazardous chemicals traveling throughout Maine on a routine basis.

Solving the Problems

In Maine it is difficult to completely solve either issue related to natural disaster or hazardous materials incidents. We can, however, continue to prepare ourselves and the residents of Maine on how to best respond should an incident occur where they live or where they work. Solutions to lessen the impact related to these types of incidents include early education on emergency preparedness and the building of personal preparedness disaster supplies in the home. Encouraging residents of Maine to best prepare themselves and their families helps us in two ways; the first being it promotes the people of Maine to be resilient and take responsibility for themselves during a disaster. Second, it allows emergency responders time to respond to residents who need rescuing or medical attention while not wasting resources on residents who did not prepare. Personal and family preparedness is a strategy for all hazards we face- prevention and education are the keys to our success in emergency preparedness.

Successes in Maine

We have had great success in Maine in responding to and recovering from all types of disasters. The Maine Emergency Management Agency (MEMA) has always promoted personal and family preparedness as the #1 strategy for disaster preparedness and continues to do this daily. They have also assisted thousands of first responders and public safety personnel throughout Maine to be fully trained at many levels to respond to hazardous materials events. Although we need to continue to train proper personnel and promote personal preparedness, Maine maintains a vast group of responders and emergency managers at all levels that are trained and ready to respond to emergencies.

The Maine Public Health Association (MPHA) has also had great success in convening local stakeholders to conduct outreach efforts on the individual and family level regarding all hazards preparedness. In coordination with the American Public Health Association, MPHA has implemented the Get Ready campaign in Maine- creating free resources and materials that are accessible on the MPHA website.

For More Information visit the Federal Emergency Management Agencies one-stop-shop for emergency preparedness information including how to build your emergency kit, prepare your family or develop a business recovery plan, go to <http://www.ready.gov/> You can also go to the MPHA site for more information on our local Get Ready campaign www.mainepublichealth.org/getready

Lyme Disease

Lyme disease and the problems we face in Maine

Lyme disease is a tick-borne disease caused by the bacteria *Borrelia burgdorferi* and spread by the bite of an infected deer tick and can be found everywhere throughout the State of Maine. Most people get Lyme disease between the months of May and August, but the following are important facts to be aware of no matter what the time of year.

- Following a bite from an infected tick, approximately 80% of people develop an expanding rash resembling a bull's eye. Flu-like symptoms may also occur during the early manifestations of the disease. Untreated, arthritis, facial paralysis, meningitis, and other neurological or cardiac symptoms may occur.
- A person previously infected does not become immune, and is able to acquire Lyme disease again if the proper steps are not taken to protect against tick bites.
- People should be especially careful when in wooded or forested areas, wild, un-maintained landscapes with high grass, or when in brush or leaf piles.
- People of all ages can get Lyme disease, but the people who get it most often include:
 - People who are commonly outdoors in areas where ticks are found (e.g. wooded areas, thick grass, overgrown bushes, and brush or leaf piles).
 - Children under the age of 15, and adults over the age of 50.
 - People with weakened immune systems.

Best practice approaches to solving the problem

Prevention is the key to solving the Lyme problem in Maine.

- The risk of Lyme disease can be reduced by avoiding tick-infested areas, using insect repellents containing 20% -50% DEET (for skin and clothing), and permethrin (for clothing only), and by checking for ticks – and promptly removing them - after returning from tick-infested areas.
- People working, playing, or relaxing in areas that may have ticks are advised to wear tucked-in, long sleeve shirts and pants, as light-colored clothing makes it easier to spot ticks.
- Deer herd management, landscaping interventions, and improved recognition of EM, and other early symptoms, will also help to reduce the burden that results from this infection.

Successes in Maine

The State Vector-borne Workgroup, composed of epidemiologists, entomologists, wildlife biologists, and toxicologists from different state agencies, has been meeting since 1987 to provide feedback on proposed and ongoing activities, and to share updates on surveillance findings. The workgroup continues to meet to address issues concerning educational needs as well as the prevention and control of Lyme disease. In addition, the Maine Medical Center Research Institute offers a free tick identification service. For specific instructions on how to submit a tick please visit their website at:

www.mmcri.org/lyme/submit.html

Emerging issues in the field

- In 2007, 529 cases of Lyme disease were confirmed among Maine residents.
- This represents a 57% increase over the 338 cases confirmed for 2006.
- The largest proportion of cases were reported among residents of York (33%) and Cumberland (31%) counties, however the numbers of cases have increased in many areas, especially in the mid-coast, and in Kennebec and Androscoggin counties.
- Cases do occur throughout Maine, and therefore tick bite prevention messages need to reach persons who live and work in, or engage in, recreation in any potential tick habitat across the state.

For more information

The Maine CDC continues to provide up-to-date information on Lyme disease at:

http://www.maine.gov/dhhs/boh/ddc/lyme/lyme_1.htm

Ten Essential Public Health Services

www.health.gov

