CHAPTER 5

CONNECTICUT'S PUBLIC HEALTH PRIORITIES

The role of public health is to respond to social, medical, and environmental challenges to health with the goal of reducing the incidence of disease, disability, and premature death within a population. Chapters 1 and 2 of this report describe the infrastructure that protects the health and safety of the population and the emerging issues facing public health. Chapters 3 and 4 provide an assessment of Connecticut's health status and several components of the existing health service delivery system. Based on this information, the Department of Public Health (DPH) has determined the most significant problems affecting the public's health in Connecticut and has set specific priorities for policy and program development for the future.

In this chapter, DPH identifies 25 public health priorities for promoting the increased expectancy and quality of life for state residents. The priorities are divided into three groups: health status, health services, and essential public health programs. Health status priorities focus on reducing mortality and morbidity by targeting problems that are modifiable. Health service priorities focus on improving the quality and accessibility of the state's personal health services. Essential public health programs support activities that assure protection from preventable environmental and infectious diseases, and regulate personal health care standards.

This chapter also presents the process and rationale used to identify and rank the priorities. Four focus areas were determined to have the greatest impact on the people of Connecticut and require attentive policy and program development during the next biennium.

DEVELOPING THE PRIORITIES

To select the public health priorities, criteria were chosen based on DPH's responsibility to provide certain basic, core public health programs, and the concepts of disease burden and modifiability. DPH's obligation to provide core public health programs is founded on its statutory responsibilities. These programs are the foundation for the high standards of health experienced by Connecticut residents today. Disease burden represents one way to evaluate the overall magnitude and seriousness of a health problem. Finally, modifiability refers to the ability of a health problem to be improved by an intervention. In this document DPH is emphasizing the modification of personal behaviors to reduce an individual's risk of premature mortality or morbidity. These considerations resulted in the formulation of 25 public health priorities.

JURISDICTION

The Institute of Medicine describes the core functions of state public health agencies as assessment, policy development, and assurance.[1] Assessment is a process that identifies current public health threats through the collection and analysis of information. Policy development is a process of developing options for addressing public health issues. Assurance is following through to see that the adopted policies are effectively carried out. The core function of assurance includes guaranteeing a minimum set of appropriate health services to a population and maintaining an adequate statutory foundation for health activities.

[1] Chapter 1 also discusses the Institute of Medicine report.

DPH is Connecticut's lead agency in public health policy, practice, and advocacy. It is DPH's statutory responsibility to protect the health and safety of Connecticut's residents and to prevent disease and promote wellness. DPH collects and analyzes health data; monitors infectious diseases, and environmental and occupational health hazards; regulates health care providers; and provides financial support to local public health agencies and jurisdictions. Public health agencies, such as local health departments, school-based health centers, and community health centers, assume responsibility for the delivery of health services to those with inadequate insurance coverage because private sector providers determine that they have no financial incentive or social responsibility to serve them.[2]

Other state agencies also have jurisdiction in areas that affect public health. The Department of Environmental Protection is responsible for managing air quality by controlling air pollution, monitoring water quality and preventing water pollution, and regulating the treatment, storage, disposal, and transportation of hazardous substances. The Department of Mental Health and Addiction Services (DMHAS) is responsible for assessing, planning for, and addressing the mental health and substance abuse problems in the state. For this reason the public health priorities in the *Assessment* do not address mental health issues, however DMHAS's most recent mental health and addiction service assessments are summarized in Appendix D.

BURDEN OF DISEASE

To improve the health of Connecticut's residents requires a reduction in the overall burden of disease. The term "disease burden" is used to describe the impact of a disease on the population. Indicators of mortality and premature mortality were used to quantify the disease burden of different health conditions for the purpose of setting the priorities. Mortality indicators consist of both the number of deaths and age-adjusted mortality rates. The indicator of premature mortality was the years of potential life lost before age 65 (YPLL).[3] This indicator emphasizes diseases or injuries that occur early in life, and is correlated with both human and economic losses to society.[4]

MODIFIABLE RISK FACTORS

To effectively reduce the burden of disease, public health efforts must address the circumstances which cause disease. People engage in many behaviors which increase their risk of disease. These behaviors, or risk factors, are related to a variety of biological, social, and environmental circumstances and are often modifiable. Risk factors have been described as the "actual" causes of death since they contribute substantially to or are the primary reasons for one or more specific morbid conditions. For example, smoking is one of the most important modifiable causes of lung cancer, cardiovascular disease, chronic lung disease, musculo-skeletal disease, and stroke (See Table 5-1).

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[2] Gordon RL, Baker EL, Roper WL, Omenn GS. Prevention and the reforming U.S. health care system: changing responsibilities for public health. In: Omenn GS, Fielding JE, Lave LB., editors. *Annual Review of Public Health*. Palo Alto: Annual reviews, Inc. 1996: 489-509.

[3] A definition of "years of potential life lost before age 65" is contained in the Glossary, Appendix O.

[4] Murray CJ, Lopez AD. Alternative visions of the future: projecting mortality and disability, 1990-2020. In: Murray CJL, Lopez AD, eds. *The Global Burden of Disease*. Cambridge: Harvard University Press, 1996.

Table 5-1
Relationships between Modifiable Risk Factors and Various Chronic Diseases
("+"=an established risk factor; "?"=a possible risk factor)

Risk Factor	CVD [a]	Cancer	Chronic Lung Disease	Diabetes	Cirrhosis	Musculo-skeletal Disease	Neuro - logic Disorder
Tobacco Use	+	+	+			+	?
Alcohol Use	?	+			+	+	+
High Cholesterol	+						
High Blood Pressure	+						
Diet	+	+	?	?		+	?
Physical Inactivity	+	+		+		+	
Obesity	+	+		+		+	+
Stress	?	?					
Env. Tobacco Smoke	?	+	+				
Occupation		+	+		?	+	?
Pollution		+	+				+
Low SES[b]	+	+	+	+	+	+	

[a] Cardiovascular disease, [b] Socioeconomic Status
Source: *Chronic Disease Epidemiology and Control*, R.C. Brownson, P. L. Remington, J. R. Davis, (Eds.) American Public Health Association, 1993

For the United States, the top actual causes of death are tobacco, diet and physical inactivity, alcohol misuse, microbial agents, toxic agents, firearms, sexual behavior, motor vehicle accidents, illicit use of drugs, and lack of access to primary care.[5] Elevated blood cholesterol and blood pressure are risk factors, but are influenced by more basic elements such as body weight, diet, physical activity, and medical interventions such as drug therapies. Although actual causes were developed from U.S. data, Connecticut data confirm the importance of tobacco, alcohol, and firearms as major causes of premature death.[6] To reap the maximum health benefits, risk factors should be modified early in life. However, reducing risk factors at any age benefits health status in later life, including persons aged 65 years and over. This is well documented for modifications of smoking, diet, and physical inactivity.[7]

DPH's ranking of the priorities was based on the data-driven analyses of disease burden, risk factors, and public health's essential services. It was also informed by the agency's key critical functions as it is currently configured. The final state health priorities are ranked within three categories: health status, health services, and essential public health programs.

Public Review and Comment

DPH intended the 1997 draft of *Looking Toward 2000* to provide the health community with a rational context for setting priorities for improved health for all Connecticut residents. Over 750 draft *Assessments* were distributed to representatives of the legislature, state government, local health departments and districts, health care providers, professional organizations, community agencies, and individuals. DPH offered 6 public hearings throughout the state during the Spring of 1998 to solicit comments on the

[5] McGinnis JM, Foege WH. The actual causes of death in the United States. *Journal of the American Medical Association.* 1993;270(18):2007-12.

[6] See Chapter 3, "Behavioral Risks."

[7] Brownson, RC, Remington, PL, Davis, JR, Editors. *Chronic Disease Epidemiology and Control.* American Public Health Association: Washington, DC. 1993.

document. Some of the comments encouraged future planning efforts to focus on special population groups such as children, the elderly, and racial and ethnic minorities. Many comments dealt with the lack of available data to perform local assessments of health status and the need for health services. Other comments identified mental health and substance abuse as major public health concerns.

CONNECTICUT'S RANKED PRIORITIES

HEALTH STATUS PRIORITIES

1. Prevention and cessation of tobacco use
2. Reduction of the factors associated with intentional, unintentional, and occupational injury
3. Improvement in rates of breast, cervical, and colorectal cancer screening and follow-up
4. Improvement in rates of hypertension detection and control
5. Improvement in rates of diabetes monitoring and control
6. Improvement in diet and rates of blood cholesterol monitoring and control
7. Further determination and reduction of the factors associated with adverse pregnancy outcomes
8. Reduction of risky sexual behavior that leads to acquisition of HIV/AIDS, STDs, and unwanted pregnancy
9. Reduction of physical inactivity
10. Reduction of alcohol abuse
11. Reduction of illicit substance use and practices associated with transmission of infectious diseases

HEALTH SERVICES PRIORITIES

1. Reinforce and strengthen the public health infrastructure
2. Focus resources on the collection, analysis, interpretation, and dissemination of health data and information for better monitoring of the health care delivery system
3. Promote the development of adequate programs and services for persons 65 years of age and older
4. Monitor the growth and development of managed care and its impact on the delivery and utilization of personal health care services
5. Expand access to affordable health insurance and primary and preventive health care services to the uninsured and underinsured

ESSENTIAL PUBLIC HEALTH PROGRAMS

1. Infectious disease control
   - 1.1. Monitoring and control of all infectious diseases
   - 1.2. Investigation of outbreaks of infectious diseases and food poisoning
   - 1.3. Immunization programs
2. Health provider quality assurance
   - 2.1. Setting and enforcing standards for professional provider qualifications and provider and facility quality assurance
3. Environmental assurance
   - 3.1. Protection of food and water through the setting and enforcing of quality standards
   - 3.2. Lead abatement in housing and testing of children for blood lead levels
4. Health services assurance
   - 4.1. Setting and enforcing standards for preventive health care
   - 4.2. Assuring the provision of health care services to underserved populations
   - 4.3. Family nutrition programs

HEALTH STATUS PRIORITIES

DPH's eleven health status priorities are based on reducing known risk factors and promoting early interventions for leading causes of mortality and premature mortality. The priorities address the reduction of the use of tobacco, alcohol, and illicit substances; risky sexual behaviors; and factors resulting in injuries and adverse pregnancy outcomes. They promote the expansion of screening and monitoring for cancer, diabetes, hypertension, and cholesterol; the improvement of diet; and greater participation in regular exercise. These priorities identify major opportunities to further improve the health and quality of life of Connecticut residents.

1. Prevention and cessation of tobacco use

Tobacco use is the single most important avoidable cause of death. An estimated 19% of all deaths in Connecticut in 1997 can be attributed to smoking. Abstinence from tobacco may prevent 90% of lung cancer deaths, the leading cause of cancer deaths in Connecticut. Tobacco use is a risk factor for heart disease, chronic lung disease, and cancers of the larynx, esophagus, pharynx, mouth, pancreas, kidney, cervix, and bladder. The consequences of tobacco use during pregnancy include spontaneous abortions, low birthweight, and sudden infant death syndrome.

Tobacco use also affects persons who do not engage in the behavior. Exposure to cigarettes, or environmental tobacco smoke (ETS), contributes to the development of acute and chronic illnesses that result in premature loss of life. Exposure to ETS is a significant public health problem because it worsens symptoms in children who have asthma and is a risk factor for the development of asthma in healthy children. Exposure to ETS increases respiratory disease symptoms, such as wheezing, coughing, and sputum production; decreases lung function; and increases the incidence of middle ear infection.[8]

2. Further determination and reduction of the factors associated with intentional, unintentional, and occupational injuries

Unintentional injuries are the leading cause of death for people between the ages of 1 and 34. In 1994 in Connecticut, they were the third leading cause of death based on age-adjusted mortality rates and the sixth leading cause of death based on the total number of deaths. More children and adolescents die each year from unintentional injuries than from all other childhood diseases combined. Motor vehicle crashes are the leading cause of unintentional injury deaths in Connecticut, accounting for one-third of all unintentional injury deaths, an average of nearly one death per day. Intentional injuries, including homicides and suicides, rank third in terms of premature death rates. Young adults between the ages of 15 and 34 years represent 72% of all homicide deaths. Black males between the ages of 15 and 34 years account for 1.5% of the population but 30% of 1994's homicide deaths. Firearms were used in seven out of ten homicide deaths and nearly half of Connecticut's suicides.

3. Improvement in rates of breast, cervical, and colorectal cancer screening and follow-up

Several types of cancer were selected as priorities based on high incidence rates and the availability of effective screening tests that can detect cancers at an early stage. Breast cancer is the second leading cause of cancer deaths in women. Mammography and clinical breast examination are important tools in reducing breast cancer mortality through detection at an early stage. Unfortunately, nearly one-third of Connecticut's women with breast cancer have been detected at later stages of development, after metastasis had occurred. Invasive cervical cancer is largely preventable by means of early screening to detect the disease at pre-invasive stages. A reduction in deaths from colorectal cancer can also be achieved through detection and treatment of early-stage cancers.

[8] U.S. Environmental Protection Agency. *The Health Effects of Passive Smoking*. Washington, D.C.: 1993.

4. Improvement in rates of hypertension detection and control

High blood pressure (hypertension) is a major risk factor for stroke and heart disease. Nearly one in five Connecticut adults have been told their blood pressure was high. Because it has no clear, overt symptoms, regular blood pressure monitoring is needed for detection and control. Weight control, physical activity, lower salt intake, a non-smoking lifestyle, and moderate or low alcohol consumption can reduce the risk of hypertension.

5. Improvement in rates of diabetes monitoring and control

Diabetes was the seventh leading cause of death in Connecticut in 1996. It is also a disease that leads to other diseases. Diabetes is associated with cardiovascular disease, hypertension, neuropathies, and peripheral vascular disease and its sequelae (e.g., amputations). Diabetes is the leading cause of end-stage renal disease and blindness among working-age adults. Over 900,000 Connecticut adults are estimated to be at risk of undiagnosed diabetes based on age, obesity, a sedentary lifestyle, or a history of gestational diabetes. The serious complications of diabetes can be prevented or delayed with early diagnosis and treatment.

6. Improvement in diet and in rates of blood cholesterol monitoring and control

Improvement in diet is a priority because it is relatively easy to modify. A poor diet is an important risk factor for serious and costly chronic health conditions. A poor diet, such as one high in saturated fat, increases a person's risk for high cholesterol, hypertension, and obesity. All three of these conditions increase a person's risk of cardiovascular disease. A poor diet, along with obesity, also increases a person's risk for colon, breast, and prostate cancer, and type-II diabetes. Recent data indicate that in Connecticut more than one person in four are obese; one person in three in some distinct subpopulations.[9] Almost half a million state residents, or one in seven, have been told their cholesterol was high.

Positive diet modifications include substantially decreasing the intake of fat, especially saturated fat, and substantially increasing the intake of fruits and vegetables, and other fibers, to reduce the risk of cancer, heart disease, and certain birth defects.

7. Further determination and reduction of the factors associated with adverse pregnancy outcomes

Low birthweight (<2,500 grams) is a measure of the adequacy of fetal growth during pregnancy. It is strongly associated with infant mortality and long-term health problems for a child, such as mental retardation, cerebral palsy, and vision and hearing disabilities. Low birthweight can be prevented by improvement in maternal nutrition; reduction or elimination of tobacco, alcohol, and illicit substance use; reduced exposure to environmental toxins; and promotion of early and regular prenatal medical care.

8. Reduction of risky sexual behavior that leads to acquisition of HIV/AIDS, STDs, and unwanted pregnancy

Reduction of risky sexual behavior through educational programs can decrease the prevalence of sexually transmitted diseases (STDs), HIV, and unwanted pregnancies. Syphilis, for example, can cause debilitating nervous system disorders and death in both infected adults and newborns, and it is also a risk factor for HIV transmission. HIV/AIDS is a leading cause of premature mortality and nearly one-third of the reported cases in 1995 were acquired from sexual contact. Unwanted pregnancies are often associated with poor prenatal care which leads to newborns who are low birthweight or premature, and other increased health risks for the mother and child. The rate of low birthweight births has not improved in Connecticut for ten years and remains a major challenge for family health programs.

[9] See Chapter 3, "Diet and Overweight."

9. Reduction of physical inactivity

Regular exercise has the potential to reduce the risk of cardiovascular disease, several types of cancer, and diabetes. Regular exercise also has beneficial effects on hypertension, weight control, osteoporosis, anxiety, and depression.

10. Reduction of alcohol abuse

Alcohol abuse has been linked to heart disease, cancers, hepatitis, cirrhosis of the liver, and other diseases (See Table 5-1). It is a factor in about half of all motor vehicle fatalities, and can adversely affect birth outcomes. In 1995, the prevalence of drinking reported by Connecticut adults was 64.8%.

11. Reduction of illicit substance use and substance use practices associated with transmission of infectious diseases

Injection drug use remains the leading means of HIV transmission. Despite the downward trend in AIDS mortality, the magnitude and epidemiology of AIDS continue to pose major challenges to prevention. In 1995, HIV infection was the seventh leading cause of death overall and the leading cause of death for Connecticut residents aged 25-44 years. One hundred fifty-nine out of 169 Connecticut towns have had at least one AIDS case among their residents.

HEALTH SERVICES PRIORITIES

State public health departments are responsible for assessing the health service needs of the people living in their jurisdictions, and assuring them access to a certain basic set of quality health care services.[10] Providing better access to health care services can reduce mortality, premature mortality, and morbidity. Bunkner, Frazier, and Mosteller[11] estimated that for a person born in the 1990's, the health care system contributed about 5 years (7%) to their life expectancy. If access to efficacious services were extended to more people, they estimated that the health system had the potential to contribute up to 2.5 additional years. McGinnis and Foege[12] cited a Carter Center project which indicated a lack of access to primary care accounted for 7% of premature deaths before age 65 and 15% of YPLL, substantial portions of which were due to infant deaths. If these estimates were applied to Connecticut, the lack of access to primary care would account for almost as many YPLL as tobacco, heart disease, or alcohol. The health services priorities address access to care for vulnerable populations, the development and dissemination of better health data, and the maintenance of quality health services for the state's residents.

1. Reinforce and strengthen the public health infrastructure.

The public health infrastructure consists of the federal, state, and local governments' capacity to meet the basic responsibilities of preserving the health of the community. Examples of these responsibilities are disease surveillance and epidemiological investigations, the collection and analysis of vital statistics, public health education, laboratory analysis, the regulation of food and water quality, the licensure of health service providers, and administration.

Historically, public health agencies have also assumed responsibility for the delivery of health services to those with inadequate insurance coverage.[13] Until about ten years ago, funding to provide health services to inadequately insured people came through direct grants or was cost-shifted from other payers. Recently, grant funding has declined, and because of managed care's cost containment pressures, the ability of public health providers to shift costs from other payers has diminished. This situation places the financial viability of agencies like community health centers and school-based health centers at risk at a time when the need for these services is expanding rapidly. The need to develop a strategy to reinforce and strengthen these traditional public health providers is urgent.

2. Focus resources on the collection, analysis, interpretation, and dissemination of health data and information for better monitoring of the health care delivery system

Public health's core functions of assessment and assurance depend upon the availability of health data and information. In Connecticut, large amounts of health data are available in the public and private sectors. These data should be linked, analyzed, and disseminated to local health agencies, health providers, governmental agencies, and other interested parties. However, there are obstacles to data availability that limit assessment, monitoring, planning, and other important public health activities. For example, the cost of obtaining health data is prohibitive for some agencies.

Specific needs for data are:

- local data on behavioral risk factors, targeting vulnerable populations;

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[10] Committee for the Study of the Future of Public Health. *The Future of Public Health*. Washington, D.C.: National Academy Press, 1988.

[11] Bunkner JP, Frazier HS, Mosteller F. The role of medical care in determining health: creating an inventory of benefits. In Amick BC, III, Levine S, Tarlov AR, Walsh DC. *Society and Health*. New York: Oxford University Press, 1995.

[12] McGinnis JM, Foege WH.

[13] Gordon RL, Baker EL, Roper WL, Omenn GS.

- data related to people's risk of poor health outcomes, such as data on personal income, socioeconomic status, access to health insurance, and access to health services;
- data on disability and quality of life, especially in the older population;
- data on ambulatory care services provided in institutions or physicians' offices, important because of the role of ambulatory care services in the contemporary health care marketplace;
- measurable health outcome data on the performance of health providers and managed care organizations, so that the public can meaningfully evaluate them when selecting health services; and
- data on provider types, specialties, and locations of practice, valuable in determining where services are needed.

In order to monitor the health status of the population, to assess its health care needs, and to assure the community that adequate services are being provided, access to better state data on health and health services is needed.

3. Promote the development of adequate programs and services for persons 65 years of age and older

The aging of the population has many implications for public health. While the total Connecticut population is projected to increase by only 9% from 1995 to 2020, the segment of the population aged 65 years and older will increase by 35%. As the population ages, the prevalence of chronic health conditions that predominantly affect the elderly will increase.

In Connecticut, seniors are the biggest consumers of personal health care services *per capita*, both in terms of volume and dollars, of any single demographic group. In 1995, people over age 64 accounted for more hospitalizations for heart disease, digestive system disorders, cancer, injuries, pneumonia, cerebrovascular disease, chronic obstructive pulmonary disease, and diabetes than any other age group. People over the age of 64 years accounted for 93% of days spent in nursing home facilities and 68% of home health care clients.

These facts emphasize the importance of having a clear, comprehensive, practical strategy for the maintenance of the health and well being of our senior population. This strategy should include institutional and community-based health care services, as well as comprehensive complementary social support services.

4. Monitor the growth and development of managed care and its impact on the delivery and utilization of personal health care services.

The organization and financing of health care services is now determined by the principles of managed care. In this environment it is the responsibility of public health to ensure that the objectives pursued by managed care organizations will, at the very least, not result in harm to the public, or, more importantly, yield improvements in the health of the public. Managed care is a system in which health providers typically assume some financial risk for the services they deliver in order to be able to access a population of insured individuals. This mechanism encourages containing costs and better patient management on the one hand, but can lead providers to underuse services on the other. One example of the tendency to reduce the services provided to patients was the practice of hospitals and doctors discharging mothers and newborns within one day of a normal delivery, the "drive through delivery" issue. Public dissatisfaction with the practice eventually resulted in legislatively mandated two day stays for normal deliveries, unless the mother and her doctor together decide on an early discharge.

In another example it was reported that capitated MCOs demonstrated a decline in service utilization when compared to fee-for-service health plans, however a majority of capitated MCO enrollees

over age 64 reported a decline in health compared to a quarter of those enrolled in fee-for-service plans.[14] This indicated that the reduction in health services had a real and perceived effect on the health of plan members.

5. Expand access to affordable health insurance and primary and preventive health care services to the uninsured and underinsured.

Poor access to timely health care services, especially preventive and primary care services, is a consequence of being un- or underinsured.[15] People without adequate health insurance have worse health status and higher mortality rates than adequately insured people because they seek care later, at more advanced stages of disease.[16] Children without health insurance are less likely to be appropriately immunized, to get care for injuries, to be regularly treated for chronic conditions, or to get dental care.[17,18] Since 1992, estimates of the uninsured in Connecticut have fluctuated between 10% and 12%.

Access can be a problem for fully insured populations as well. In an analysis of health conditions for which hospitalization may have been avoided with appropriate use of ambulatory care, DPH found that Medicaid enrollees were hospitalized at rates between two and ten times greater than patients insured by private insurers.[19] This suggests that Medicaid enrollees may have problems accessing ambulatory care services. Another analysis showed that only 24% of Medicaid-enrolled children in Connecticut were screened for dental services during FFY 1996, and the rate of dental decay for 6-8 year old Medicaid enrollees was 21% higher than the national average.[20]

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[14] Ware JE, Bayliss MS, Rogers WH, Kosinski M, Tarlov AR. Differences in 4-year outcomes for elderly and poor, chronically ill patients treated in HMO and fee-for-service systems. *JAMA* 1996; 276(13): 1039-47.

[15] See Chapter 2, "Consequences of Lacking Health Insurance."

[16] Franks P., Clancy CM, Gold MR. Health insurance and mortality. *Journal of the American Medical Association* 1993 vol. 270, pp.737-741.

[17] Blumberg LJ, Liska DW. The uninsured in the United States: a status report. 1996 April.

[18] Families USA. Unmet needs: the large differences in health care between uninsured and insured children. Analysis of the 1994 National Health Interview Survey. Washington, D.C.: 1997 June.

[19] See Chapter 4, "Ambulatory-care-sensitive Hospitalizations."

[20] Lee MA. Children's Health Council. Personal communication. August 28, 1997. Based on data obtained from the HCFA-416 Report for FFY 1996.

ESSENTIAL PUBLIC HEALTH PROGRAMS

Much of the improvement in the health of Connecticut residents over the past century is the result of successful public health, social, and economic programs. Reduction or discontinuation of these essential programs would almost certainly lead to an increase in morbidity and mortality. The priorities for essential public health programs emphasize infectious disease control, environmental assurance, and quality assurance for health providers and services.

1. INFECTIOUS DISEASE CONTROL

1.1 Monitoring and control of all infectious diseases
1.2 Investigation of outbreaks of infectious diseases and food poisoning

Reportable infectious diseases and treatments are monitored for surveillance purposes. Monitoring alerts the public health community to emerging changes in infectious diseases. For example, the emergence of drug-resistant tuberculosis in urban areas, which primarily affects minorities, results from the gradual breakdown of the public health infrastructure which was organized to defend against it. The prevention of tuberculosis outbreaks requires site-specific intervention programs. The bacterium *Streptococcus pneumoniae* causes a wide range of infections, including pneumonia, otitis media, meningitis, and bloodstream infections. They are of public health concern because they occur in clusters in crowded settings, and antibiotic-resistant strains have recently emerged. Ingestion of food products contaminated with pathogenic infectious agents can lead to a wide range of health consequences, including death.

New tools are emerging that prevent infectious diseases, including vaccines against varicella, pneumococcal disease, hepatitis A, rotavirus gastroenteritis, Lyme disease, and anti-viral agents to prevent HIV transmission. There are also national prevention initiatives for foodborne illnesses and Group B streptococcal disease.

1.3 Immunization programs

The prevention of infectious diseases is assured through appropriate immunization programs. For example, vaccination completion rates for Connecticut children for the primary measles immunization series, required by age 2, are the highest in the nation. However, vaccination levels are low among urban residents, among children who have delayed initiation of vaccination, among children who have moved into an area after birth, and among those whose parents have a history of poor utilization or poor access to health care.

2. HEALTH PROVIDER QUALITY ASSURANCE

2.1 Setting and enforcing standards for professional provider qualifications and provider and facility quality assurance

DPH is responsible for regulating providers such as health facilities and health professionals to assure that competent and capable health care and environmental service providers are available to the entire population. This is accomplished by licensing the professions, health care and day care facilities, and environmental services.

3. ENVIRONMENTAL ASSURANCE

3.1 Protection of food and water through the setting and enforcing of quality standards

There has been no incidence of waterborne disease in Connecticut during the 1990's. The high quality of drinking water is maintained through a variety of regulatory and coordinated planning activities. These activities must continue to assure a safe drinking water supply.

3.2 Lead abatement in housing and testing of children for blood lead levels

Because the prevalence rate of children with elevated blood lead levels from Connecticut's major urban areas are between three and four times higher than estimates of the national average,[21] it is important to maintain assessment activities include screening programs, and prevention measures include education programs.

4. HEALTH SERVICES ASSURANCE

4.1 Setting and enforcing standards for preventive health care

Preventive services for the early detection of disease are associated with substantial reductions in morbidity and mortality.[22] Public health agencies are responsible for setting and enforcing standards for monitoring prevention programs. Examples of preventive efforts include immunization programs and smoking prohibition policies in health care facilities.

4.2 Assuring the provision of health care services to underserved populations

A traditional responsibility of public health is to assure access to a minimum set of quality health care services for the population. DPH recognizes that access to health care affects the overall health status of the population and must be maintained as a public health priority.

4.3 Family nutrition programs

Family nutrition programs are a priority because they can prevent deterioration of children's health. Proper child nutrition is directly related to improved school performance, enhanced growth and development, and a reduction in obesity. Nutrition is also a contributing factor in low birthweight babies, birth defects, osteoporosis, and diabetes. Optimal nutrition can prevent disease, reduce risk of illness, enhance recovery and reduce complications, and promote general health and well being.[23]

The public health infrastructure has assumed the responsibility of providing nutrition programs and food supplements to those who are medically in need or who cannot afford a nutritionally complete diet.

SUMMARY AND NEXT STEPS

As the year 2000 approaches, a course must be set for public health that will lead it through the next decade. Based on the issues identified in the *Assessment*, and the priorities identified in this chapter, Connecticut needs to focus its resources now on those areas of activity that will have the most significant impact on the health of the state.

Beyond our commitment to adequately maintain essential public health programs, DPH feels that its policy and program development should emphasize those health conditions that are the most pervasive among our residents: cardiovascular and cerebrovascular disease, cancer, unintentional injuries, and the

[21] See Chapter 3, "Blood Lead Levels in Children."

[22] U.S. Preventive Services Task Force. *Guide to Clinical Preventive Services*, 2nd ed. Baltimore: Williams & Wilkins, 1996.

[23] American Dietetic Association. Cost effectiveness of medical nutrition therapy. *Journal of the American Dietetic Association*. 1995 January.

modifiable risk factors associated with them: tobacco use, diet and cholesterol, physical inactivity, and hypertension.

The priorities described in this chapter can be condensed into four main areas for public health action in the next biennium:

- ◊ Cardiovascular disease
- ◊ Cancer
- ◊ Injuries
- ◊ Surveillance and monitoring

DPH is now in the process of allocating resources to these key areas. Plans and programs are being designed to increase prevention efforts in these areas. For example, DPH is coordinating a cancer control plan and has prepared a tobacco use prevention and cessation plan. Injury prevention efforts include the child passenger safety program, fall prevention and medication safety program for older adults, and service provider training. DPH is working to identify and reduce health disparities in Connecticut's racial and ethnic groups, such as the preventive health program for cardiovascular disease targeted to high-risk populations.

Within the four focus areas, programs will monitor access to preventive and clinical services, assess the quality of services provided, and evaluate people's health outcomes. For example, DPH is improving injury surveillance by linking medical outcomes data to police vehicle crash reports. As part of its surveillance efforts, DPH is designing ways to improve its risk factor assessments and to integrate them into existing program planning and evaluation efforts. To enhance the Behavioral Risk Factor Surveillance System, DPH is developing methods to obtain information on rural and urban populations.

To maintain currency in its planning and priority-setting efforts, DPH will reassess the health status and health services of the state every two years. This biennial planning process is essential for setting meaningful policy and program direction for the Connecticut DPH in the future.