

TURNING POINT



NEBRASKA'S PLAN TO STRENGTHEN AND TRANSFORM PUBLIC HEALTH IN OUR STATE

PUBLIC HEALTH IMPROVEMENT PLAN

A grant from the Robert Wood Johnson Foundation

Developed By:

Nebraska Community Health Partners Stakeholders Group
Nebraska Health and Human Services System

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NEBRASKA'S PLAN TO STRENGTHEN AND TRANSFORM PUBLIC HEALTH IN OUR STATE

FOREWORD

BACKGROUND AND PURPOSE

As the new century approaches, public health in Nebraska faces many serious challenges due to the changing demographic, economic, social, cultural, and political environments. Fortunately, these changes mean enhanced opportunities to strengthen and transform public health at both the state and local levels. In order to take advantage of these new opportunities, however, both the public and private sectors at the state and local levels need to work collaboratively. Such collaboration will improve the health of all individuals in Nebraska and strengthen the partnership between state and local agencies.

This document is intended to be a guide or a blueprint for improving the public health system in Nebraska. The purpose of this strategic plan is to identify a new vision for public health in Nebraska. The plan will outline strategic directions and identify the resources that are necessary to achieve the vision.

The recommendations in this plan are geared toward both the private and public sectors. The plan assumes that one of the necessary ingredients for improving the health status of our population is to focus more on prevention-based strategies. The traditional focus has been on medical, curative-oriented paradigms. This shift from curative to preventive paradigms can best be accomplished by improving the capacity for delivering public health services at both the state and local levels.

It is important to emphasize that this plan is only a blueprint that will provide the template for gradual changes over time. Timely modifications will be needed to respond to the rapid forces of change in the health care environment in the next century.

PROCESS FOR DEVELOPING THE PLAN

A grant from the *Robert Wood Johnson Foundation* called *Turning Point* provided the impetus to initiate a process for developing a strategic plan for public health in Nebraska. The development of this plan was guided by the *Nebraska Community Health Partners Stakeholders Group (NCHPSG)*. This group was formed in 1997 and consists of representatives from many diverse organizations, including the Nebraska Public Health Association (NPHA), the Nebraska Association of Farmworkers (NAF), the Environmental Health Association (EHA), the Nebraska Association of Hospitals and Health Systems (NAHHS), the Nebraska Medical Association (NMA), the Nebraska Nurses Association (NNA), the Nebraska Minority Public Health Association (NMHA), local health departments in the state, Nebraska Association of Community Action Agencies (NACAA), the state's two medical centers, employers, private insurance,

the faith community, county officials, the State Legislature, and the HHS System. A complete list of representatives is shown in Appendix A.

In order to maximize participation and inputs from all individuals and organizations in the process, several subcommittees were formed. Each of the following subcommittees developed recommendations in a specific area:

- ! Infrastructure and Core Functions
- ! Community Planning and Implementation
- ! Minority Health and Human Services
- ! Prevention
- ! Environmental Health

Once the five subcommittees formulated their recommendations, they were reviewed by the Stakeholder Group collectively and then incorporated into the plan. A list of the members in different subcommittees is also contained in Appendix A.

The preliminary draft plan was reviewed and approved by the NCHPSG and the Policy Cabinet of the HHS System. A two-month public review and comment period was provided and the plan was revised accordingly.

IMPLEMENTATION OF THE PLAN

The *Nebraska Community Health Partners Stakeholders Group* (NCHPSG) will be responsible for guiding the implementation of the plan. They will be directly involved in reviewing and monitoring the progress of the plan. Within the HHS System, a Public Health Team consisting of representatives from Health and Human Services, Regulation and Licensure, and Finance and Support was formed by the Policy Cabinet in 1998. This team will focus on implementing those recommendations that pertain specifically to the HHS System.

CHAPTER 1

THE ROLE OF PUBLIC HEALTH IN NEBRASKA

Improving the health of all people in Nebraska has long been recognized as an important policy goal. In 1869, the Nebraska Legislature in its first session gave authority to cities of 3,000 or more population to establish a Board of Health. In 1891, the Legislature created a State Board of Health. These early efforts were primarily focused on controlling the spread of infectious diseases such as smallpox and influenza. Over the years public health has evolved into many areas and programs. These areas and programs pervade into several spheres of life and are aimed at improving and preserving health of all members in our community. Barry Levy, the past president of the American Public Health Association (APHA), has succinctly pointed out, "Many public health activities are invisible – you do not see them, but you see their results throughout the day."¹

For example, many of us take it for granted that our drinking water is safe. Because of restaurant inspections, we can sit in a non-smoking area and can be assured that our food is safe to eat. If there is an outbreak of a foodborne illness (*e.g.*, salmonella), public health workers find the source of the contamination and minimize the adverse impact on the community. Public health agencies develop many prevention and health promotion programs to encourage us to follow more healthy lifestyles. Public health also provides a variety of direct services such as immunizations, prenatal care, breast cancer screening, well child care, nutrition, and reproductive health clinics. Most of these activities and services maintain a low profile or low visibility unless there is a major crisis.

THE DEFINITION AND CORE FUNCTIONS OF PUBLIC HEALTH

Public health encompasses many activities and functions and for that reason there is not a universally accepted definition of public health. In this plan, public health is defined as ***an organized process which protects and promotes physical and mental health and prevents disease, injury, disability, and premature death. Public health services are population-based services which are focused on improving the health status of the entire population as opposed to the treatment of individuals.*** In addition to a population-based focus, public health has several other unique features. Some of these include:

- ! A focus on prevention as a prime strategy for improving and preserving health.
- ! A collective policy decision-making process that involves collaboration among broad public interests and diverse constituencies.
- ! Intervention strategies and health policies that are based on accurate and timely data and have a grounding in the basic sciences of epidemiology, biostatistics, environmental science, management sciences, and behavioral and social sciences.

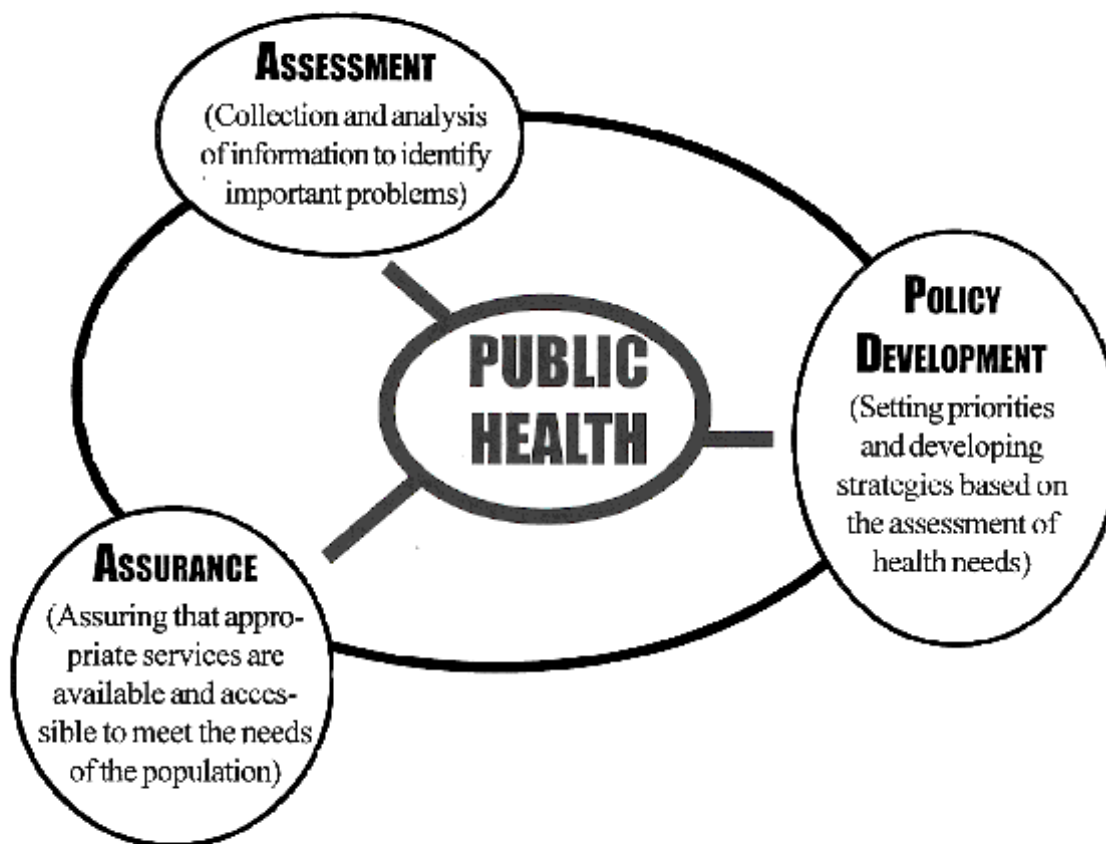
In a 1988 report, the Institute of Medicine identified three core functions of public health.² The core functions are the foundation of public health and they are closely linked with one another in a continuous

cycle. The core functions are assessment, policy development, and assurance. The relationships between the core functions of assessment, policy development, and assurance are shown in Figure 1.

FIGURE 1

THE RELATIONSHIPS BETWEEN CORE PUBLIC HEALTH FUNCTIONS OF ASSESSMENT, POLICY DEVELOPMENT, AND ASSURANCE

The **assessment** function involves the collection and analysis of information to identify important health problems. These problems may involve water quality, the use of tobacco and alcohol, or the disparity in health status between the white population and racial/ethnic minorities. Once the important health problems have been identified, the **policy development** function focuses on building coalitions that can develop and advocate for local and state health policies to address the high priority health issues. The **assurance** function makes state and local health agencies as well as health professionals (*e.g.*, physicians) responsible for ensuring that programs and services are available to meet the high priority



Adapted from Institute of Medicine's *Future of Public Health* Report, 1988.

needs of the population. These services and programs can be provided directly or through other public or private agencies. The assurance function also involves developing the administrative capacity to manage resources efficiently, implementing prevention and health promotion programs to modify individual behavior to improve community health, and evaluating programs and services to determine the efficiency and effectiveness of these efforts. The results of measuring the impact of various intervention strategies, regulatory activities, and current health policies can be used during the next assessment process. The three core functions are discussed in greater detail in Chapter 3.

THE DETERMINANTS OF HEALTH AND THE IMPACT OF PUBLIC HEALTH

In order to develop healthy communities, there must be a clear understanding of the major determinants of the general health of the population. Although a healthy community makes high quality medical care available to everyone, there are many other factors that contribute to “good” health. Each of the major determinants of health is described below. Along with this description the potential role and involvement of public health agencies and programs is elaborated briefly.³

Socioeconomic Conditions – There is a direct relationship between many socioeconomic conditions and health status. For example, poverty, unemployment, lack of housing, and lack of education have often been associated with poorer health status in Nebraska and in other parts of the country. In addition to these challenges, many racial/ethnic minorities also face discriminatory and cultural barriers as well as lower levels of health insurance coverage. Through systematic data collection and analysis, the role of public health is to help identify and report health problems that may be related to socioeconomic conditions. Some communities have also relied on community health nursing and public immunization clinics to assist low-income families.

The Physical Environment – Many studies have documented the impact of outdoor and indoor air quality, safe drinking water, cleanup of hazardous waste sites, and food protection on the overall health of individuals in the community. With the recent *E. coli* outbreaks and the environmental issues surrounding large hog confinement operations, there is an increasing awareness about how changes in the physical environment influence health. Public health is responsible for examining and reporting the impact. The public health system has a strong environmental component that is responsible for water quality, food safety, radiation protection, and control of toxic substances. To protect the health of future generations, public health should also play a role in protecting and maintaining natural resources such as the aquifer, soil, and species diversity.

Part of the physical environment involves examining risk factors related to the work area. Occupational safety can involve handling chemicals on the farm or other physical or mental stressors and hazards.

Lifestyle (Behavioral Risk and Protective Factors) – The health of an individual is greatly influenced by lifestyle or behavioral risk and protective factors. Some of the negative (risk) factors include smoking, alcohol and other drug use, physical inactivity, and indulging in other risk-taking behaviors. Some of the positive (protective) factors include adoption of safety behaviors such as seat belt use, physical activity, and healthy nutrition for appropriate weight management. Risk factors also include the lack of a social support system that is needed for parenting and domestic violence protection. Others include violence as well as intentional (*e.g.*, suicide) and unintentional injuries (*e.g.*, motor vehicle crashes). Public health programs influence lifestyle in two ways: 1) thorough analysis of data and providing information on the nature and extent of the risks (risk assessment); and 2) providing programs that promote healthy behaviors (Health Communication, Health Information, Health Education, and Health Promotion).

Access to and Quality of Health Care Services – In Nebraska there are significant geographic and financial barriers to health care. Many rural areas have an inadequate supply of primary care physicians and other health care professionals. Approximately 11 percent of Nebraskans are uninsured and many more are underinsured. The percentage of uninsured is considerably higher for racial/ethnic minorities and cultural barriers are often formidable. In terms of access, public health sometimes provides critical health services such as immunizations, family planning, and well child care, and screening for early intervention (*e.g.*, pap smears, breast cancer screening, prostate cancer screening). Public health also influences the quality of health care services by licensing and certifying health professionals, health services, and health care facilities.

Genetics – Many health problems, including birth defects, mental retardation, coronary heart disease, cancer, and diabetes, are affected by varying degrees of contribution from genetic make-up. These genetic conditions may have a significant impact on families and the increased need for various health and social services. Public health influences genetic components through the support of regional laboratories, clinics, and support services for individuals and families.

In summary, there are five categories of factors that influence health. For both individuals and populations, health depends not only on medical care but also on other factors such as individual behavior and genetic make-up as well as social and economic conditions for individuals and communities. Since a broad range of factors influence health, a variety of public and private entities have a stake in or can affect individual and community health. These stakeholders, which include health care providers (*e.g.*, physicians and hospitals), public health agencies, and community-based organizations such as community health centers and community mental health organizations, have a direct impact on health. However, many other government agencies, community organizations, private industry, and other agencies such as schools, employers, social service and housing agencies, transportation and justice agencies, and faith communities play a more implicit and indirect but important role in improving health.⁴

Communities that are successful in improving health involve all of the major stakeholders and work to coordinate their roles and responsibilities. They have a common understanding of the multidimensional nature of the determinants of health and ways to accommodate diversity in values and goals.⁵

THE RELATIONSHIP BETWEEN PUBLIC HEALTH AND MEDICINE

Historically, there has been a close working relationship between **public health**, with its focus on promoting healthy conditions for all populations in the community, and **medicine**, with its focus on treating or restoring the health of the individual patient. In the late 1800s and early 1900s, the most common health problems were infectious diseases such as tuberculosis, influenza, pneumonia, smallpox, and typhoid fever. In controlling the threat of infectious diseases, it is generally agreed that these diseases should be controlled with societal preventive action as well as individual medical care. During this period, health departments and boards of health were established at both the state and local levels to conduct and enforce sanitary measures and to maintain birth and death records, which were needed to track disease. Working in conjunction with volunteer citizen associations and local practitioners, governmental public health efforts were successful in addressing many of the important risk factors for the transmission of communicable diseases: overcrowding, poor nutrition, inadequate sewerage systems, uncollected garbage, and contaminated water and food.

The emergence of epidemiology and microbiology in the late 19th century transformed the nature of medicine and public health. In a classic application of epidemiological methods in 1854, John Snow successfully identified the source of a cholera epidemic in London some thirty years before Sefee Koch isolated and identified the cholera virus. Methods of epidemiology investigations have since evolved and allowed for the identification of many important risk relationships, including the association between smoking and lung cancer and physical inactivity and heart disease. In the medical sector, microbiology allowed scientists to identify the causes of diseases and develop therapies (*e.g.*, antitoxins and antibiotics) to treat patients. These discoveries dramatically increased the effectiveness of medical diagnosis and treatment. In the public health sector, the new science led to targeted strategies for improving the environment. Some of these initiatives involved the detection and control of bacteria in water systems, the pasteurization of milk, and the eradication of mosquitoes to control yellow fever. During this time, laboratories developed tests to diagnose infectious diseases and vaccines were used to prevent disease.

These changes enhanced the opportunities for interaction between medicine and public health. For many communicable diseases, the complementary efforts of medical practitioners and public health professionals could protect the health of the entire community by immunizing most individuals. Laboratory tests provided by public health professionals were extremely valuable to medical practitioners. Public health also began to focus its attention on health education and maternal and child health issues. For example, well-baby clinics with home-visiting services were established to inform women about proper nutrition and childcare. Public health nurses were posted in schools to test children for eye problems and other physical impairments that might interfere with learning. If problems were identified, referrals were made to the appropriate medical practitioners.

By 1950, both the medical and public health sectors began to focus on chronic diseases such as cardiovascular disease and cancer because they had replaced infectious diseases as the leading causes of death. The medical sector addressed chronic illnesses by attempting to identify the biological mechanisms of these diseases within the body and by effective procedures and drugs that could be used for diagnosis and treatment. Public health efforts focused on using epidemiology to identify the environmental, social, and behavioral risk factors that caused chronic diseases and protective factors that prevented such diseases and developing population-based interventions to reduce risk factors and foster protective factors.

Public health strategies also began to center on the promotion of screening, early diagnosis, and treatment. For example, screenings for breast and cervical cancer can lead to early diagnosis of these conditions, and screening for hypertension and cholesterol can lead to medical treatment that helps to reduce the rise of stroke and heart disease. If problems are detected, individuals are encouraged to obtain services from medical practitioners. A second major public health strategy is to modify behaviors that make people susceptible to chronic illnesses. Counseling is provided to high-risk patients and community-wide campaigns are used as a mechanism to reinforce the advice being given by medical practitioners. Examples of these promotional efforts include tobacco control, promoting seat belt use, controlling alcohol and other drug use, and promoting exercise.⁶

BENEFITS OF PUBLIC HEALTH

Despite receiving only about one percent of the total health expenditures in the United States, public health efforts have resulted in dramatic improvements in health and life expectancy during the past century. In 1997, an estimated \$40 per person was spent on public health functions in the United States while about \$4,000 per person was spent for medical services. It is estimated that only five of the 30 additional years of life added to life expectancy since 1900 can be attributed to medical care. The remaining 25 years are attributable to improvements in the standards of living and population-based health activities.⁷ Public health prevention programs can have a dramatic effect as measured by longevity, quality of life, and cost effectiveness. It has been estimated that about 50 percent of all deaths before age 75 are caused by unhealthy behaviors, 20 percent by environmental factors, 20 percent by biological factors, and 10 percent by inadequacies in the health care system. The following are examples of the effectiveness of prevention and health promotion programs and activities.

EFFECTIVENESS OF PREVENTION AND HEALTH PROMOTION PROGRAMS AND ACTIVITIES

- ! The prevalence of smoking among adults in Nebraska has dropped from 28 percent in 1982 to 21 percent in 1997. In 1995, there were a total of 2,706 smoking-related deaths in Nebraska with an estimated cost of \$428,304,880. Without public health programs, these totals would have been considerably higher.⁸
- ! Standard protection of the drinking water supply from routine infections is estimated to cost only \$4,000 per year of life added.⁹

- ! Water fluoridation is highly effective in preventing tooth decay. Children who live in communities with fluoridated water can expect up to a 60 percent reduction in the amount of cavities in their baby teeth. The reduction in dental caries for adults is nearly 35 percent. Although the cost per person of fluoridation for a lifetime is less than the cost of a single filling, more than 650,000 Nebraskans do not receive adequately fluoridated water. ¹⁰
- ! The average blood-lead levels of children have been lowered by more than 70 percent since 1976, as the lead content of gasoline has declined, lead solder used for food cans was phased out, and other lead control measures were implemented by the public health community. ¹¹
- ! Each year in the United States, immunization has been estimated to prevent 3.3 million cases of measles, 2.1 million cases of mumps, and 1.5 million cases of rubella, which otherwise would have cost \$1.4 billion per year in medical care. The cost of such efforts, including the combined MMR vaccine and treatment of any reactions, is \$100 million. ¹²

The bottom line is that public health is a wise investment that not only extends life expectancy, but also improves the quality of life. Public health efforts in Nebraska and across the country have saved many lives and improved the quality of life of many individuals and the population as a whole.

THE PUBLIC HEALTH SYSTEM IN NEBRASKA

LOCAL LEVEL

The current public health system in Nebraska consists of a state agency and 16 local health departments that cover 22 counties. The location of the local health departments and the counties served are shown in the map in Figure 2. Two new local health departments were recently organized in Platte/Colfax Counties and York County. Nebraska's local health departments receive little support from the state and operate with autonomy, although there are some statutory connections. For example, local health departments must be organized with state approval, and local health directors must be confirmed by the state. There are also many contractual arrangements between state and local health departments, most of which come in the form of individual programs. However, the state does not have the power to direct policy for local health departments.

The larger health departments in Douglas, Lancaster, Hall and Scottsbluff Counties generally provide all of the three core functions and offer a variety of direct services and environmental activities. The smaller local health departments have limited staff (one or two people) and provide fewer services. Most of these provide some elements of the policy development core function and some assurance activities.

At the present time, most local health departments provide only limited assessment activities and almost no environmental or outreach programs. Health education activities are also restricted to sporadic awareness building and information dissemination activities, with very little effort in actual skill-building and behavior modification of risk and protective factors. Unless the capacities of these agencies are strengthened, they will continue to provide only a limited number of programs.

Other organizations also provide some public health activities. For example, city health departments have been organized in Hastings, Kearney, Lexington, and Norfolk, but these entities have limited staff

and focus exclusively on environmental health activities. In addition, nearly all of the community action agencies are involved in the provision of immunization, maternal and child health, and WIC programs. Hospitals also play an important role by providing screening, health education and disease prevention activities, and in some instances serve as the coordinator for community assessment efforts.

CORE FUNCTION ACTIVITIES PROVIDED BY NEBRASKA'S SMALLER LOCAL HEALTH DEPARTMENTS

- ! Health screening clinics (primarily non-invasive, such as hypertension)
- ! Health education and promotion activities (primarily awareness building and information dissemination)
- ! Home health nurse and aide visits
- ! Women, Infants, and Children (WIC) clinics
- ! Maternal and child health visits
- ! Well child clinics and immunization clinics
- ! Adult immunization clinics

Recently, community-based coalitions have been formed in about 35 areas across the state. They may cover a single county (*e.g.*, Buffalo County Community Health Partners) or may represent a multi-county area. For example, the North Central Community Care Partnership covers a nine-county area in the north central part of the state. Although the stage of development varies considerably, most of the coalitions have a diverse membership and meet on a regular basis. Most are in the process of assessing the health needs in their community, but a few have developed or implemented their high priority intervention strategies.

There are also many other agencies and organizations that are providing some of the public health functions and programs. Some of these include: area agencies on aging, family planning, community/migrant health centers, physicians, nurses, and other health professionals, schools, the faith community, and worksite wellness programs.

STATE LEVEL

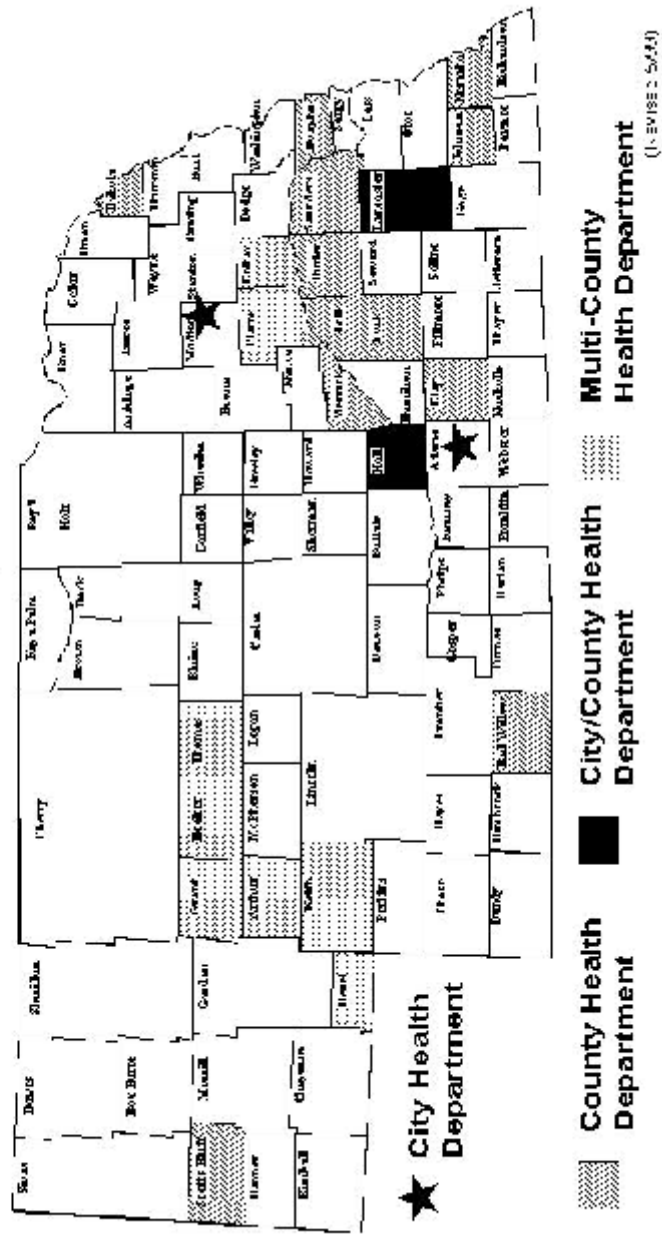
At the state level various public health programs are part of the newly formed Health and Human Services System (HHS System). In January of 1997, the Departments of Health, Social Services, Public Institutions, the Department on Aging, and the Office of Juvenile Services were merged together into three new agencies that are part of the HHS System. The three new agencies are Regulation and Licensure, Finance and Support, and Health and Human Services.

The Department of Regulation and Licensure is responsible for credentialing and licensing health professionals and facilities, state laboratory services, various environmental health programs (*e.g.*, water safety and radiation), epidemiology, and health statistics. The Department of Health and Human Services contains many of the traditional public health programs such as immunization, family planning, WIC, maternal and child health, health promotion and education, and chronic disease prevention. This agency also includes all of the public mental health services, juvenile services, programs for the developmentally disabled, and several human service programs such as child support, economic assistance, and children and family services. Finally, the Department of Finance and Support is responsible for Medicaid, the collection of vital statistics, and health planning activities as well as all of

the major support services such as human resources, information systems, financial services, and legal services.

Although many public health programs and services are provided throughout the state, several gaps still exist. Building a stronger public health infrastructure at the local level is a major priority in this plan and is discussed in greater detail in Chapter 3.

Figure 2
Local Health Departments, by Jurisdiction,
Nebraska, 1999



THE NEW ENVIRONMENT: MAJOR CHALLENGES AND OPPORTUNITIES FOR PUBLIC HEALTH

Dramatic and fundamental changes are occurring in the health care environment in both the public and private sectors. These changes have created new incentives to control costs, to improve quality, and to begin to shift the focus from the health of the individual to the health of the entire community. This unstable and dynamic environment has also created new opportunities for collaboration and building new partnerships. Some of the major challenges and opportunities facing public health are discussed below.

MANAGED CARE

In an effort to control medical care costs both the public and private sectors have turned to managed care. Through managed care plans, there is an opportunity to combine both the medical and financial aspects of a patient's care.

In the past few years, managed care plans have been very successful in controlling health care costs and reducing excess capacity by imposing large price discounts or by shifting the financial risk to providers. They have also developed more effective quality assurance and utilization management programs to encourage better health outcomes. As a result, providers should have stronger incentives to prevent disease from occurring in their enrolled population and the community as a whole.

The number of residents in Nebraska who have enrolled in managed care plans have increased substantially in the past five years. For example, most large employers in Nebraska now offer only managed care plans. In Nebraska's metropolitan areas, about 50 percent of the Medicaid population belong to a managed care plan. The number of the state's Medicare beneficiaries currently enrolled in managed care is low, but the number is likely to increase over the next five years.

The shift to managed care offers many opportunities for public health agencies at the state and local levels. At the local level, outreach services in the home or schools can be provided. Also, local agencies can work with managed care organizations in monitoring the health of their enrolled population. Managed care organizations also have stronger incentives to offer cost-effective preventive services to their enrolled population, and they should also be very supportive of efforts by public health agencies to implement community-wide preventive programs (*e.g.*, tobacco control and promoting seat belt use).

At the state level, there are similar opportunities to work with managed care organizations on monitoring and statewide prevention programs. States can also develop statewide registries to track immunization levels in both public and private clinics. Finally, states can be involved in developing performance standards and monitoring the quality of care for the Medicaid population.

PRIVATE MEDICINE AND PUBLIC HEALTH

Historically, private medicine and public health have been complementary in the treatment of infectious and chronic diseases. By the 1950s, however, private medicine and public health became separated and less dependent on one another. Private medicine centers on the treatment of individuals while public health has taken a population-based approach. Factors contributing to this separation include various “turf” issues (*e.g.*, competing for the same patients), the proliferation of medical specialties, the increasing reliance on expensive medical technology, the progressive categorization and fragmentation of public health, cultural differences, greater commercialization of private medicine, greater governmental control of public health, and a growing imbalance in funding between the two sectors.

Dramatic changes in the health care environment are creating new opportunities for the public health and medical sectors to collaborate and work more interdependently. Both sectors are under pressure to control costs and improve performance outcomes. These are the times for greater accountability at all levels. Also, many of the major differences between private medicine and public health are blurring as more medical care is provided in a managed care environment. As private providers assume more financial risk, there are stronger incentives to focus on health of both individual patients and the entire population. Public health agencies can use databases to analyze and monitor the health of the community as well as provide community-wide health education and prevention programs.

In addition to resource constraints and new financial incentives, there are new challenges that are forcing improved collaboration between the two sectors. For example, there is a re-emergence of diseases (*e.g.*, tuberculosis and measles) that many thought were “conquered.” New diseases are emerging, such as HIV/AIDS that can not be easily prevented or cured. “Old” diseases such as cervical cancer and peptic ulcer appear to have new and unexpected causes. There are also no easy solutions to various social problems, such as violence, substance abuse, and teen pregnancy. The number of uninsured continues to increase, creating additional barriers to obtaining health services. Finally, major disparities in health status based on race, ethnicity, and socioeconomic health status are becoming a disturbing “norm” in Nebraska and the nation. Challenges can be overcome if the two sectors combine resources and skills. Building a strong partnership will enable both sectors to achieve benefits neither of them could achieve alone.

SOCIOECONOMIC FACTORS

Although socioeconomic factors such as poverty, income, and education have long been known to have a significant impact on the health of individuals and families, public health has not aggressively addressed these issues. In the past thirty years or so, there has been a tendency to rely on the medical care model to solve social problems. For example, in this model, sexual abuse, substance abuse, and domestic violence are generally thought of as mental diseases. As a result, these social problems are given a medical diagnosis and health care providers are reimbursed for treating them. Although the medical care system has treated these conditions symptomatically, it has relatively little control over addressing the root causes and the demand for services.¹³

A recent study found that persons in lower socioeconomic groups are more likely to engage in risky behaviors (*e.g.*, smoking, excessive alcohol consumption, a high body mass index, and low physical

activity level), but these behaviors explain no more than 12 to 13 percent of the predictive effect of income on mortality. These findings suggest that there is a need to broaden the search for other factors such as hostility, depression, and social isolation.¹⁴

Another recent study supports these findings. Using data from a California HMO, the results indicated that for those adults who lived in an environment of emotional, physical, or sexual abuse and household dysfunction during childhood were at greater risk for alcoholism, drug abuse, depression, and suicide. They were also more likely to smoke, have poor self-rated health, have 50 or greater sexual partners, and a sexually transmitted disease. The greater the breadth of exposure to abuse or household dysfunction during childhood the greater the likelihood of chronic diseases, including heart disease, cancer, lung disease, skeletal fractures, and liver disease.¹⁵

Public health has an opportunity to assume a lead role in forming broad-based coalitions to address these difficult issues. Through a rigorous assessment process, the underlying risk factors for persons in lower socioeconomic groups can be documented and monitored. Once these needs are better defined, public health can play a role in initiating policy changes that redress the social conditions that create a poor health and disparities in health status.

MINORITY HEALTH

Minority populations are growing rapidly in both urban and rural parts of Nebraska. According to the Census Bureau, the state's minority population grew by 25 percent between 1980 and 1990, and racial/ethnic minorities were found in every Nebraska county. From 1990 to 1997, the minority population rose by 39 percent and now constitutes 10 percent of the total population.

In terms of health status, significant disparities exist between racial/ethnic minorities and the white population. For example, during the period 1993-1997, African Americans had twice as many potential years of life lost as the white population. Native Americans experience by far the highest rate of diabetes-related deaths of any racial/ethnic group, and these rates are over four times those for white Nebraskans. Teen pregnancy birth rates among teens aged 15 to 17 for Hispanics/Latinos are twice as high as for white teens. There are also several access barriers to health services for racial/ethnic minorities. Some of these barriers include language and cultural differences, lack of health insurance, and access to transportation.¹⁶

Public health has a responsibility to monitor and document these disparities and barriers and to ensure egalitarian participation of all the racial/ethnic minorities at all levels of the community planning process. Leaders in the minority community are in the best position to suggest appropriate culturally-sensitive intervention strategies and public health can help in the implementation of these strategies.

RURAL HEALTH

Many rural areas are considered underserved and need to develop both public health and medical systems capacity. Many areas have a shortage of physicians, nurses, mental health professionals, and

many other types of health personnel. Public health can assist rural communities in the recruitment and retention of health care professionals and documenting health system deficiencies. Capacity can be stabilized or improved through telemedicine, medical information, emergency medical and trauma systems, and conversion of nursing homes to assisted living facilities and hospitals to critical access hospitals. Public health can also focus on the causes of farm accidents and injuries and design preventive programs to reduce them.

ENVIRONMENT

The public's interest in and knowledge of environmental issues continues to increase, especially in light of the technological changes in the agricultural (*e.g.*, the increased use of chemicals and large livestock operations) and industrial sectors (*e.g.*, water pollution). Clean air and water, as well as food safety issues, are growing concerns of the public.

There are several environmental issues that impact the health of communities. For example, the increased use of chemicals in agricultural production and the practices of large hog confinement plans pose environmental risks for the water and soil. Food safety outbreaks such as *E.coli* threaten not only the health of consumers, but also the economic well-being of those who work in one of the state's meat processing plants. Public health can help to identify these health risks and assist communities in developing and implementing appropriate intervention strategies.

A NEW VISION FOR PUBLIC HEALTH

As the 21st Century begins, the vision for public health is to have healthy and productive individuals, families, and communities across Nebraska. In order to achieve this vision, strong and effective partnerships will be formed with state, local, and tribal governments, community-based coalitions, non-profit and volunteer organizations, academic institutions, the business community, hospitals, physicians, insurance organizations, minority and environmental organizations, and many others.

These partnerships will be effective in improving health status for all population groups and eliminating disparities for racial/ethnic minorities and the other underserved populations. Financial, geographical, and cultural barriers will be eliminated through a more integrated health and medical delivery system. This system will have a greater focus on quality, accountability, and prevention. Finally, a stronger public health infrastructure will be developed that includes more local health departments and community health system organizations. This enhanced infrastructure will provide key public health functions and activities and support greater local decision making based on an effective community planning process.

CHAPTER 2

THE STATE OF HEALTH IN NEBRASKA

This chapter presents a general overview of some of the major health problems in Nebraska. In the first part of the chapter some of the demographic trends and their implications for public health are identified. In the second part the trends in health status, including some of the major disparities between the racial/ethnic minority populations and the white population are examined. In the final section the progress that has been made in achieving the Nebraska Year 2000 Objectives is analyzed.

DEMOGRAPHIC TRENDS

Several significant trends in Nebraska's population are discernable that are likely to have a major impact on the health and medical care systems. These trends reveal important shifts in age groups, geographic distribution, and racial/ethnic distribution. Based on the Bureau of Census data, some of the major trends are summarized below.

NEBRASKA'S DEMOGRAPHIC TRENDS

- ! Although Nebraska's total population has grown considerably during the 1990s, many small rural counties that are not near a regional economic or health center continue to decrease in size. Most of the decrease in these counties resulted from out-migration of the younger population (18 to 45 years). Smaller population bases make it more difficult to recruit and retain physicians and other health care professionals. A small population base also makes it more difficult to operate institutional services, such as hospitals, and finance other types of services such as mental health, public health, emergency medical services, and long term care services.
- ! Another significant trend is the aging of the state's population. In 1990, the percentage of the population aged 65 and older was 14.1 percent, compared to the national average of 12.5 percent. As of 1997, the number of persons aged 65 and over in Nebraska increased by 4,861. However, the percentage of persons 65 and over in Nebraska showed a slight decline to 13.7 percent, while the percentage at the national level showed a marginal increase to 12.7 percent. Most of the increase during the seven-year period in Nebraska can be attributed to the growth in the number of persons 85 and over.
- ! In rural counties (those with populations of less than 20,000 people) about 18 percent of the population is 65 or over and in 37 counties the number of persons over age 65 exceeds 20 percent. This trend has important implications for the delivery of health and medical services because an older population needs more services. However, a shrinking total population base reduces the number of people in the service area. The net result is that fewer health and medical services are available to meet the needs of the population. These inadequate services are further compounded by the lack of public transportation services in most rural areas of the state.
- ! Another major demographic trend is the substantial growth of racial/ethnic minority populations. During the decade of the 1980s, the racial/ethnic minority population rose by 23 percent while there was a minor 0.5 percent decrease in the white population. This implies a substantial growth of minorities in our state. Since 1990, the racial/ethnic minority population expanded by 39 percent while the white population increased by 4 percent. In general, the minority population tends to be younger, have lower incomes, higher poverty, and less insurance coverage. They are also more likely to be employed in high-risk occupations such as meat packing plants and farm labor. As a result, these population groups often experience difficulty gaining timely access to health and medical services. Even when services are available, language and cultural barriers prevent effective utilization of these services. There is a dire need to optimize these services for minority populations using culturally sensitive tools.

SOCIOECONOMIC TRENDS

As previously discussed in Chapter 1, there are several socioeconomic factors that have an impact on health. Some of these factors include: ¹⁷

POVERTY STATUS

- ! Poverty in Nebraska decreased slightly from 11.1 percent in 1989 to 9.9 percent in 1997. The national rate in 1993 was 13.6 percent.
- ! In 1989, the only year in which census data are available by age reveals that of the 170,616 persons below the poverty level, 57,026 or 33 percent were under age 18 and 20,466 or 12 percent were under age five.
- ! Poverty rates also vary by geographic area. In general, the north central and north western counties experienced the greatest poverty rates in 1993, with some pockets along the southern tier of counties. The counties with the highest poverty rates in 1993 were Thurston (24 percent), Sheridan (18 percent), and Dawes (17 percent). It is alarming to note that these rates are much higher than even the national average.
- ! Nebraska's racial and ethnic minority groups are greatly over-represented in the lower income categories. According to the 1990 U.S. Census, the proportion of minority residents living in households with incomes below 100 percent of the federally-designated poverty level ranged from a low of 20.1 percent for Asian Americans to nearly half (46.2 percent) for Native Americans living in the state. In comparison, only 9.9 percent of white Nebraskans lived in poverty. In addition, the proportion of the population with incomes below the poverty level has increased for every racial/ethnic minority group since the 1980 census. Disparity in economic status across the races still remains a challenge for our state.
- ! Differences in poverty rates between whites and racial/ethnic minority residents of Nebraska were particularly striking for households with children. For children under five years of age, the proportion living in households with incomes below 100 percent of poverty level ranged from about 25 percent for Asian Americans to about 65 percent for Native Americans, compared to 13.8 percent of white children in this age group. Among older children aged 5 to 17 years of age, about 10 percent of white children live in poverty. Rates for minority children in this age group ranged from 14.5 percent for Asian Americans to more than 50 percent for Native Americans.

INSURANCE COVERAGE

- ! The number of uninsured in Nebraska has increased from about five percent in 1985 to almost 10.6 percent in 1997. In 1997, there were 181,000 people without insurance coverage. Rural residents compared to their urban counterparts were somewhat more likely to be uninsured. It is also

estimated that in 1997 a little less than 30 percent of the uninsured were children. This number is expected to drop in half when the *Kids Connection Program* is fully implemented. Fortunately, this program complements the state Medicaid program by providing insurance coverage to all children who live in families with incomes at or below 185 percent of the federal poverty level.

- ! Significant disparities exist in the percentages of uninsured between the white population and racial/ethnic minorities. Data from the 1995-1997 Nebraska Behavioral Risk Factor Survey (NBRFS) indicated that the overall level of uninsured for the total population was 10 percent. In contrast, the correspondent rates for Native Americans, and Hispanic Americans were 24 percent and 19 percent. The rate for African Americans was above the state average at 12 percent, while the rate for Asian Americans was below the state average at 9 percent.¹⁸

HIGH SCHOOL DROPOUT RATE

- ! The high school dropout rate reflects the level of educational attainment and is defined as the percentage of students who drop out of school between grades 9 to 12. During the 1995-1996 school year, the high school dropout rate in Nebraska was 4.5 percent, compared to the median dropout rate of 5.0 for the 23 states that had comparable data. The range of the dropout rates varied from 2.7 percent in North Dakota to 9.7 percent in Nevada. Therefore, Nebraska is in the mid-range, indicating the need for more efforts in this regard.
- ! Dropout rates varied by gender and racial/ethnic origin. In Nebraska almost 58 percent of the dropouts were male and nearly 30 percent were racial/ethnic minorities, which re-emphasizes the need for focusing on minority-oriented, culturally sensitive programming.¹⁹

HEALTH STATUS

In comparison with the nation as a whole, Nebraskans enjoy above average health status. A 1998 report by *ReliaStar* ranked Nebraska twelfth among all states in health status.²⁰ This ranking was based on the analyses of 17 primary indicators. Compared to other states, Nebraska had a very low unemployment rate, a high-school graduation rate, a low level of infectious diseases, and a low number of premature deaths. In contrast, the state had relatively high rankings and was worse off for motor vehicle deaths, occupational fatalities, more limited activity days, and a high infant mortality rate (see Table 1 for a summary of the indicators and the Nebraska ranking compared to other states). These rankings clearly demonstrate that Nebraska faces some major challenges to further improve the health status of its residents.

Nebraska's infant mortality rate is also a concern. Although the infant mortality rate dropped from 8.1 deaths per 1,000 live births to 7.4 deaths per 1,000 live births from 1996 to 1997, the state rate remains above the national 1996 rate of 7.2. There are also significant disparities between the white population and racial/ethnic minority populations. Table 2 shows the trends in infant mortality rates for the five major

population groups in Nebraska for the periods 1983-1987, 1988-1992, and 1993-1997. These trends show that between 1983-1987 and 1993-1997, modest declines were observed for the white and African American populations. Table 2 also depicts the relative risks of infant mortality for minority populations. This term is defined as the ratio between incidence of infant death rate in a minority population and the incidence of infant death rate in the white population. It is glaring to note that as a relative risk, the African American rate actually increased from 2.1 to 2.3. In other words, African Americans were still 2.3 times more likely to have an infant death than the white population.

For Hispanic Americans, the relative risk increased from 0.8 during the 1983-1987 period to 1.2 during the 1993-1997 period. The relative risk for Native Americans declined sharply from 2.5 in 1983-1987 to 1.2 in 1993-1997. Finally the relative risk for Asian Americans was below the risk of the white population for the two periods (1988-1992 and 1993-1997) in which data were available. In this case, Asian Americans are less likely than the white population to have an infant death. However, one has to keep in mind that these rates are not adjusted for any other variables, such as income levels.

TABLE 1
RELIASTAR STATE HEALTH RANKINGS - 1998

Measure	Nebraska Rate	US Rate	Measurement	Data Year(s)	Weight	Rank Order
Prevalence of Smoking	22.1	23.5	Percent	1996	10	(T)12
Motor Vehicle Deaths	1.9	1.7	100,000,000 miles	1997	5	(T)27
Violent Crime	435.0	634.0	100,000	1996	5	24
Risk for Heart Disease	-7.0	NA	- - -	1995 - 96	5	(T)12
High School Graduation	82.9	68.1	9 th graders graduate w/in 4 yrs	1995 - 96	5	(T)6
Unemployment	2.6	4.9	Percent	1997	5	(T)1
Adequacy of Prenatal Care	77.8	74.7	Percent	1996	5	(T)18
Lack of Health Insurance	13.2	17.8	Percent	1997	5	(T)15
Support for Public Care	1.9	1.8	Calculation	1995	5	16
Occupational Fatalities	13.7	4.2	100,000 workers	1994 - 95	2.5	38
Limited Activity Days	4.4	3.4	Days per 30 days	1996	2.5	40
Heart Disease	138.8	144.8	Deaths/100,000	1993 - 95	7.5	(T)23
Cancer Cases	452.7	409.8	Cases/100,000	1998 proj.	7.5	(T)16
Infectious disease	18.1	46.4	Cases/100,000	1995 - 97	5	9
Total Mortality	478.0	519.1	Deaths/100,000	1993 - 95	10	(T)13
Infant Mortality	8.1	7.4	Deaths/1,000 live births	1995 - 96	7.5	36
Premature Death	6,559.9	8,128.2	YPLL-75/100,000	1995	7.5	(T)7
OVERALL					100	12

Source: Relistar, *The Relistar State Health Rankings: An Analysis of the relative Healthiness of the Populations in All 50 States*, 1998 Edition

TABLE 2

INFANT MORTALITY Rates and Relative Risk of Mortality* For Nebraska Racial and Ethnic Minority Population

INFANT MORTALITY	1983-1987		1988-1992		1993-1997	
	Rate per 1,000 Live Births	Relative Risk	Rate per 1,000 Live Births	Relative Risk	Rate per 1,000 Live Births	Relative Risk
White	8.9	--	7.1	--	7.6	--
African American	19.0	2.1	20.2	2.8	17.1	2.3
Native American	21.9	2.5	18.2	2.6	9.0	1.2
Asian American	NA	NA	6.2	0.9	5.2	0.7
Hispanic American	7.4	0.8	10.1	1.4	9.3	1.2

*Note: Relative risk of mortality for minority populations is defined as the incidence of infant death rate in these populations when compared to the incidence in the white population.

Source: Nebraska Vital Statistics data, HHSS, Regulation and Licensure, Data Management Section.

YEARS OF POTENTIAL LIFE LOST

Years of Potential Life Lost (YPLL) is a measure of premature death. YPLL indicates that the younger the age of the person at death, the more years of potential life that are lost. Hence, this indicator is very useful to gauge the loss of contributions to human society. Table 3 shows the leading causes of death and the years of potential life lost in Nebraska for the two periods 1985-1987 and 1995-1997. While heart disease and cancer have a greater total number of deaths, unintentional injuries, which include motor vehicle crashes, have more years of potential life lost in both periods. These trends signify the importance of placing high priorities on these issues.

However, the number of potential years of life lost has declined from 42,485 in the 1985-1987 period to 34,118 during the 1995-1997 period. Significant decreases in the number of premature deaths were recorded for birth defects and smaller reductions in the number of premature deaths were found for cancer, heart disease, and cirrhosis and chronic liver disease. In contrast, the number of potential years of life lost between 1985-1987 and 1995-1997 increased for deaths due to suicides, homicides, cerebrovascular disease, pneumonia, and HIV/AIDS. The largest increases occurred for HIV/AIDS (561 percent) and homicides (34 percent). While the reason for dramatic increase in HIV/AIDS related YPLL

can be contributed partially to improved diagnostic capabilities and secular trends in natural history, the increase in homicide-related YPLL is an indicator of growing violence.

The information in Table 3 indicates that for many of the leading causes of death, the age-adjusted rates are declining. The exceptions were HIV/AIDS and homicides and both have a relatively small number of deaths. However, the fact that the number of potential years of life lost is increasing for many causes of death or continues to remain high for accidents, cancer, and heart disease implies that many of these deaths could be prevented with effective health promotion and health education programs. Premature deaths have a significant impact on the Nebraska economy in terms of reduced productivity and income.

TABLE 3

**THE LEADING CAUSES OF DEATH IN NEBRASKA
For The Periods 1985-1987 And 1995-1997
Ranked by The Years of Potential Life Lost (YPLL)**

CAUSE OF DEATH	Deaths		Age-Adjusted Death Rate*		Years of Potential Life Lost**	
	1985-1987	1995-1997	1985-1987	1995-1997	1985-1987	1995-1997
Accidents	1,854	1,868	33.8	28.7	42,485	34,118
Motor Vehicle Accidents	845	842	18.6	16.6	26,347	22,675
Cancer (all forms)	9,327	9,914	153.0	151.0	31,010	30,210
Heart Diseases (all forms)	16,428	15,019	151.6	122.2	22,982	21,970
Suicides	590	545	11.8	10.6	12,456	12,724
Birth Defects	291	237	6.0	4.7	15,115	10,642
Homicides	146	177	3.3	3.9	4,850	6,507
Cerebrovascular Disease	3,445	3,399	26.6	24.0	3,705	3,909
Pneumonia	1,743	1,745	12.0	11.2	2,267	2,585
HIV/AIDS	24	152	0.5	3.1	621	4,106

	Deaths		Age-Adjusted Death Rate*		Years of Potential Life Lost**	
Cirrhosis / Chronic Liver Disease	316	263	5.4	4.1	2,314	2,254

*Per 100,000 Population.

**Based on 65 as a reference age.

Source: Nebraska HHSS, Department of Regulation and Licensure, Data Management Section.

DISPARITIES IN MORTALITY AND DISEASE: INCIDENCE AMONG RACIAL/ETHNIC MINORITY GROUPS IN NEBRASKA

From a health status perspective, one of the major areas of concern is the disparity in mortality rates and years of potential life lost between racial/ethnic minority populations and the white population. The health of racial/ethnic minorities is influenced by lifestyle factors (*e.g.*, tobacco use) and minorities face major financial and cultural barriers in accessing health care services.

Table 4 displays the years of potential life lost for racial/ethnic minorities and the white population in Nebraska between 1988-1992 and 1993-1997. During the 1988-1992 period, the age-adjusted YPLL rate (based on an assumption of 75 productive years of life) for the white population was 6,377 years per 100,000 population. This overall rate is about 20 percent lower than the national rate. Compared to the state YPLL rates, the Nebraska rate for African Americans (13,018) was about double for both periods. The YPLL rate for Native Americans was 2.8 times the white rate in 1988-1992 and decreased to 2.5 times in 1993-1997. The YPLL rate for Hispanics remained equal to the white rate for both periods and the rate for Asian Americans remained at about half for both the periods.

TABLE 4

YEARS OF POTENTIAL LIFE LOST – ALL CAUSES

Based on 75 Productive Years of life
For Nebraska Racial and Ethnic Minority Populations

ALL CAUSES	1988-1992			1993-1997		
	YPLL	Age-Adjusted Rate/100,000	Minority-to-White Ratio*	YPLL	Age-Adjusted Rate/100,000	Minority-to-White Ratio*
White	474,569	6376.5	--	471,399	6141.3	--
African American	36,185	12209.0	1.9	39,055	13012.0	2.1
Native American	9,990	17627.0	2.8	9,269	15289.0	2.5
Asian American	2,123	3301.0	0.5	2,579	2961.7	0.5
Hispanic American	11,181	5733.1	0.9	18,850	6151.6	1.0

*Minority Age-Adjusted YPLL Rate/100,000 divided by White Age-Adjusted YPLL Rate/100,000

Source: Nebraska Vital Statistics data, 1988-1992 and 1993-1997, Nebraska HHSS, Department of Regulation and Licensure, Data Management Section.

In Table 5, the relative risk of mortality or infection for racial/ethnic minorities compared to the white population is shown. During the period 1993-1997, the relative risk of homicides for African Americans has been increasing and is almost 12 times higher than it is for the white population. The relative risk for African Americans is over six times higher for HIV/AIDS incidence, and 2.5 times higher for diabetes

related deaths. Although the rates have declined from previous years, the relative risk for sexually transmitted disease (STD) incidence is still almost 17 times greater for African Americans. Cirrhosis death rates are also dropping but remain 3.1 times higher.

Priority high-risk areas for Native Americans compared to the white population are STD incidence (5.4) and heart disease deaths (2.1). Although the rates for cirrhosis deaths, alcohol-related deaths, diabetes-related deaths, and homicides are declining, Native Americans are 17 times more likely to die from cirrhosis of liver, five times more likely to die from alcohol-related deaths, four times more likely to die from diabetes-related deaths, and 8.5 times more likely to be homicide victim.

In comparison to the white population, Asian Americans were at lower risk. There were no indicators with a relative risk of 1.5 or greater. The highest relative risk for Hispanic Americans is homicide (3.4) and STD incidence (2.5). Hispanics were also at higher risk for HIV/AIDS incidence (2.4) and cirrhosis deaths (2.6).

RISK FACTOR PREVALENCE AND ACCESS TO CARE FOR RACIAL/ETHNIC MINORITIES

The high number of premature deaths for racial/ethnic minorities compared to the white population can be largely attributed to risk factor prevalence and barriers that limit access to care. In 1993, for example, only 19 percent of all adult Nebraskans who were surveyed indicated that they smoked cigarettes. In contrast, the corresponding percentages for African Americans, Native Americans, Asian Americans, and Hispanic Americans were 32 percent, 49 percent, 22 percent, and 24 percent. Native Americans and Hispanic Americans were also significantly overweight compared to the total population and all racial/ethnic minority groups were less likely to be physically active. Asian Americans were considerably below the state average for cholesterol checks, mammogram screenings, and Pap smear tests. These low percentages could be partially attributed to language/cultural barriers and lack of language/culturally-sensitive programs.

In addition to the risk factor prevalence, racial/ethnic minorities face serious barriers in accessing health care services. Table 6 presents a summary of access to care barriers for racial/ethnic minorities. One of the major access barriers is the lack of health insurance coverage. A 1993-1994 survey found that nine percent of Nebraskans were without any type of health insurance coverage. However, 21 percent of African Americans, 30 percent of Asian Americans, and 37 percent of Hispanic Americans were uninsured. Racial/ethnic minorities were also less likely to see a physician due to the high cost.

Language was a significant barrier for Asian Americans where 30 percent of the respondents indicated they had a problem. The lack of transportation was also cited as a barrier. For example, 23 percent of Native Americans said the lack of transportation was a major problem in gaining access to health care services.

Race/ethnicity was identified as a barrier to receiving care. Forty-eight percent of African Americans agreed or strongly agreed that race or ethnic origin is a barrier to the receipt of health care services. The

respective percentages for Native Americans, Hispanic Americans, and Asian Americans were 40 percent, 39 percent, and 30 percent.

TABLE 5
DISPARITY IN SELECTED HEALTH STATUS INDICATORS
OF NEBRASKA'S RACIAL / ETHNIC MINORITY RESIDENTS
Relative Risk of Mortality or Infection Compared to White Population
1993 - 1997

POPULATION GROUP	RELATIVE RISK OF MORTALITY OR INFECTIONS IS 1.5 OR GREATER AND...					
	Rate Increased	Rel. Risk	Rate Remained Stable	Re.I Risk	Rate Decreased	Rel. Risk
African Americans	Homicides	11.5	Alcohol-Related Deaths	2.0	STD Incidence	16.7
	AIDS Incidence	6.2			Cirrhosis Deaths	3.1
	Diabetes-Related Deaths	2.5			Infant Mortality	2.3
	Prostate Cancer Deaths	2.1			Post-Neonatal Mortality	2.3
	Stroke Deaths	1.8			Low Birth Weight	2.0
	Heart Disease Deaths	1.7			Cervical Cancer Deaths	1.5
	Tobacco-Related Deaths	1.6				
	Lung Cancer Deaths	1.6				
Native Americans	AIDS Incidence	1.8	STD Incidence	5.4	Cirrhosis Deaths	17.3
	Stroke Deaths	1.7	Heart Disease Deaths	2.1	Alcohol-Related Deaths	4.7
	Suicides	1.6	Tobacco-related Deaths	1.7	Diabetes-Related Deaths	4.3
			Lung Cancer Deaths (Males)	1.5	Homicides	3.5
					Post-Neonatal Mortality	2.4
					Unintentional Injury Deaths	2.3
					Motor Vehicle Fatalities	2.0
Hispanic Americans	Homicides	3.4	Cirrhosis Deaths	2.6		
	STD Incidence	2.5				
	AIDS Incidence	2.4				
	Diabetes-related Deaths	1.6				
Asian Americans	No indicators with relative risk of 1.5 or greater					

Source: Nebraska HHSS, Department of Regulation and Licensure, Data Management section, HIV/AIDS Surveillance Program, Communicable Disease Section.

TABLE 6

SUMMARY OF ACCESS TO CARE INDICATORS Among Nebraskans Aged 18 and Older By Race or Ethnic Origin

INDICATOR	<i>African American (%)</i>	<i>Native American (%)</i>	<i>Asian American (%)</i>	<i>Hispanic American (%)</i>	<i>All Adult Nebraskans (%)</i>
No health insurance	21	45	30	37	9
No routine checkup in last 5 years	5	9	18	14	11
Unable to see doctor due to cost	17	31	15	25	9
Language a barrier to receiving health care	5	5	30	14	NA
Lack of transportation a barrier to receiving health care	12	23	8	11	NA
Race/ethnic origin a barrier to receiving health care	48	40	30	39	NA

NA - Not Available

Source: The 1993 Nebraska Minority Behavioral Risk Factor Survey and the 1993-1994 Nebraska Behavioral Risk Factor Survey.

In summary, it is clearly evident that the vision of healthy individuals, families, and communities cannot be achieved unless there is a dramatic improvement in the health of Nebraska's growing racial/ethnic minority populations. To bridge the gap between the wide disparities in the health status of racial/ethnic minorities and white population, it is essential to address the high risk factor prevalence (*e.g.*, tobacco use), the major barriers that limit access to health care services, and the lack of local public health services across the state.

PROGRESS ON NEBRASKA'S YEAR 2000 OBJECTIVES

This section highlights the progress toward (achievements) or movement away from (areas for improvement) the Year 2000 Objectives (see Table 7 at the end of the section). Overall, considerable improvements have been made in the health status of people in Nebraska during the past decade. For example, compared to the national data, age-adjusted death rates from all causes combined are currently about 11 percent lower in Nebraska and continue to decline.

Significant progress has also been made in several other areas. For example, the rates of coronary heart disease and stroke deaths have decreased substantially. More people in Nebraska reported that they participate in leisure-time activities and the proportion of women who smoked during pregnancy

declined. In addition, progress is being made in increasing the number of people who have drinking water with optimal levels of fluoride.

There are also some areas where virtually no progress toward the Year 2000 targets is evident. Unfortunately, the overall cancer death rate has decreased only slightly. Despite an earlier decline, the proportion of adults who “drink and drive” has remained steady since 1987. These are important challenges in the coming century.

On the negative side, movement away from the Year 2000 objective has occurred for several indicators. Compared to the baseline, current data show that diabetes-related death rates increased and more adult Nebraskans are now overweight. Also, death rates due to homicide and suicide are higher than found at the baseline.

Cardiovascular Disease – Cardiovascular disease (CVD) is still the leading cause of death in Nebraska and the nation. However, rates of coronary heart disease (CHD) deaths and deaths due to stroke (cerebro-vascular disease) have decreased considerably in recent years. Age-adjusted coronary heart disease death rates have declined by 34 percent since 1987 in Nebraska. There were 75 deaths per 100,000 population from this cause in 1997, achieving the state’s goal for reducing deaths due to coronary heart disease (CHD). This rate was also much lower than the national rate of 108 per 100,000 in 1995.

Stroke mortality rates were down by 12 percent from 1987, but did not reach the Year 2000 objective set for Nebraska. The Nebraska age-adjusted rate of 23 stroke deaths per 100,000 was also lower than the national rate of stroke deaths (27).

Native Americans and African Americans in Nebraska experienced much higher death rates due to cardiovascular disease than white residents did in the past five years. Nationally, there is secular trend of declining CVD mortality rates. Similar trends are evident in Nebraska. CVD mortality rates have been declining over the last 15 years among white Nebraskans, but CVD death rates among other racial and ethnic groups in the state were higher in 1993-1997 than they were in 1983-1987. This is an alarming trend and needs concerted efforts directed toward these groups.

Persons with elevated blood cholesterol levels double their risk of developing coronary heart disease. It is recommended that blood cholesterol levels be checked at least once every five years in healthy adults aged 20 and older. If readings are high, making changes in diet and increasing exercise are often recommended to bring cholesterol levels down to a satisfactory level as a prevention strategy. In Nebraska, the proportion of adults who had their blood cholesterol checked in the past five years has risen from 45 percent in 1987 to 66 percent in 1997. The Year 2000 objective is to increase this proportion to 75 percent.

Cancer – Cancer is the second leading cause of death in Nebraska and the nation. Nationwide, cancer mortality rates showed only modest decreases from the baseline. The overall cancer death rate in

Nebraska declined only slightly from the 1990 age-adjusted baseline rate of 155.4 deaths per 100,000 population to 147.8 in 1997. It appears unlikely that cancer rates will decrease enough to reach the state's objective of no more than 135 cancer deaths per 100,000 population by 2000. Addressing the issue of reducing the incidence and prevalence of cancer will be an important priority in the next millennium.

Breast cancer is the most commonly diagnosed cancer and the second leading cause of cancer deaths among women in Nebraska. Mammography has dramatically increased the rate of early breast cancer detection. An annual mammogram and clinical breast exam (CBE) are recommended for women over 50 years of age. The proportion of Nebraska women in this age group who received both a mammogram and a CBE in the past two years has increased from 42 percent in 1990 to 58 percent in 1997, nearly achieving the Year 2000 target of 60 percent.

Injuries – Unintentional injuries are the fifth leading cause of death in Nebraska, but because injury victims tend to be much younger than people dying from heart disease or cancer, the number of years of potential life lost (YPLL) due to injuries is higher than for any other cause of death.

The unintentional injury death rate in Nebraska declined from 33.0 deaths per 100,000 in 1988 to 30.8 in 1997, but has not quite reached the objective for 2000 (29.3 deaths per 100,000). Progress in Nebraska nearly matches the improvement in unintentional injury deaths nationwide.

The death rate due to motor vehicle crashes is down in Nebraska compared to the 1988 baseline. However, rates have shown an upturn since 1995. A similar trend is evident in the rate of alcohol-related motor vehicle deaths. Serious efforts are needed to address these specific issues.

The proportion of adult Nebraskans who report “always” or “nearly always” using their automobile safety belts has increased dramatically from 49 percent in 1988 to 77 percent in 1997. Most of the improvement can be attributed to a state law that went into effect in January 1993 that requires use of safety belts in motor vehicles. This emphasizes the important role that legislative efforts and policy interventions when combined with education programs can make in addressing public health issues.

Although the homicide rate in Nebraska is less than half the national rate, homicides in the state have increased over the past ten years (from 3.3 per 100,000 in 1988 to 4.0 in 1997) and will not achieve the objective for 2000.

Suicide death rates in Nebraska have shown little improvement over the last ten years, with rates hovering around 11 deaths per 100,000 population. Thus it is not likely that the Year 2000 objective of no more than 9.0 suicides per 100,000 will be reached. This will continue to be a challenge for the next millennium.

Diabetes – Age-adjusted diabetes-related death rates in Nebraska increased from the 1986-1990 baseline of 31.2 deaths per 100,000 population to 35.3 in 1997. The current death rate is lower than the

1995 national rate of 40 deaths per 100,000, but is higher than the Nebraska Year 2000 objective of 28 and is moving away from the target.

Diabetes-related mortality rates for racial/ethnic minorities in Nebraska (except Asian Americans) were much higher than rates for whites and have been rising over the last 15 years. The diabetes-related mortality rate for Native Americans in the state was more than four times the rate for whites in 1993-1997. The rate for African Americans was 2.5 times the rate for whites and the diabetes-related death rate for Hispanic Americans was 1.6 times the rate for whites in Nebraska. It is evident that there is a critical need for culturally sensitive interventions for minorities.

Maternal and Child Health – Although Nebraska generally fared better than the nation in Most areas of maternal and child health, progress toward some of the state's Year 2000 objectives in this area has been slower.

Infant mortality rates in Nebraska declined from 9.0 infant deaths per 1,000 live births in 1985-1989 to 7.4 per 1,000 in 1997, with decreases occurring both in neonatal death and postneonatal death rates. The Nebraska rate is slightly below the national rate of 7.6, but it is unlikely that it will decrease enough to achieve the Year 2000 objective of 5.5. Clearly more efforts are needed in this regard.

The infant mortality rate for African Americans in Nebraska (17.1) was more than double the rate for white infants (7.6) for the latest five-year period (1993-1997). Mortality rates for Native Americans (9.0) and Hispanic Americans (9.3) were also higher than the rate for white babies, although rates for Native Americans have decreased substantially over the last five years.

Low birth weight (LBW) rates have increased steadily in Nebraska, as they have nationwide. In Nebraska, the proportion of low-weight births has risen from 55.3 low weight births per 1,000 live births in 1985-1989 to 70.3 in 1997. Although the nationwide rate is a little higher (73.0), it has increased more slowly than the Nebraska rate. Since it has been moving away from the target, it is unlikely the LBW rate in Nebraska will meet the state's Year 2000 objective of no more than 50 low-weight births per 1,000 live births. While we have been able to reduce some of the environmental contributions to low birth weight such as gestational infections, malnutrition, and others, it is unfortunate to note that lifestyle factors such as smoking, alcohol and substance abuse continue to largely influence LBW rates. This re-emphasizes the need for addressing lifestyle factors in the coming millennium.

Low birth weights were nearly twice as likely among African American infants (119.2 per 1,000 live births) as among white infants (59.8) in Nebraska for the latest five-year period.

Only slight progress has been made in Nebraska in improving the proportion of mothers who begin receiving prenatal care in the first three months (first trimester) of pregnancy. In 1997, 83.7 percent got first trimester care, compared to 81.3 percent nationwide in 1995. Rates will not meet the state's Year 2000 target of at least 95 percent receiving first trimester prenatal care.

Among racial and ethnic minorities in the state, first trimester care rates were generally much lower than the rate for white mothers (84.9 percent) in 1993-1997, averaging 70.2 percent for African American mothers, 64.1 percent for Native Americans, and 65.4 percent for Hispanic Americans.

The rate of births occurring to unmarried couples rose considerably, increasing from 192 in 1989 to 258 per 1,000 births in 1997. This rate is far higher than the Nebraska Year 2000 objective of no more than 205 out-of-wedlock births per 1,000 live births. Evidently, this is an area of challenge for the next millennium.

In Nebraska, the teen pregnancy rate has decreased substantially from 42 pregnancies per 1,000 girls (aged 15 to 17) in 1989 to 29.5 in 1997. The rate in Nebraska is much lower than the rate nationwide (76 in 1994) and meets the state's Year 2000 objective of no more than 30 teen pregnancies per 1,000.

HIV / AIDS – In 1997, there were 91 cases of HIV/AIDS reported in Nebraska with an incidence rate of 5.5 per 100,000 persons per year. It is somewhat reassuring to note that this rate is about one-fourth as high as the national rate (22.3).

As is true nationwide, racial and ethnic minority groups are over-represented among Nebraskans who have HIV/AIDS. African Americans made up 23 percent of all persons diagnosed with HIV/AIDS in 1995-1997, but they comprise only 3.8 percent of the estimated population of the state. Hispanic Americans and Native Americans are also over-represented among persons with HIV/AIDS, compared to their share of the population. These data again emphasize the need to focus efforts toward minorities.

In 1997, there were 30 deaths due to AIDS in Nebraska. The number of deaths from this cause have declined substantially since a high of 82 in 1994, due primarily to new advances in treatment that may extend survival among those who are HIV-infected. It is obvious that this has and will continue to place additional burden on the cost of medical care. Hence, there is need to invest in prevention-bound strategies.

Immunizations – Results of an immunization survey conducted by the Centers for Disease Control and Prevention (CDC) showed that 77 percent of children in Nebraska between the ages of 19 and 35 months were up-to-date on their immunizations in 1997. Among racial and ethnic minority children, the proportion was found to be lower (71 percent). The Nebraska Year 2000 objective was to have at least 90 percent of children in this age group appropriately immunized. Clearly, we have fallen short in accomplishing that target and need to make greater efforts in this area. The proportion of persons aged 65 and older who have received an immunization for influenza in the past 12 months has increased from 53 percent in 1993 to 66 percent in 1997. This surpasses the national rate of 58 percent and the Year 2000 objective of at least 60 percent of persons in this age group receiving "flu shots" in the past year.

Environmental Health – The proportion of Nebraska residents served by community water systems that supply optimal levels of fluoride has increased to 70 percent, compared to 62 percent in 1992. The objective for Year 2000 is 75 percent.

Risk Factor Prevalence – Tobacco use is currently the leading preventable cause of death in the United States. Cigarette smoking is an important risk factor for coronary heart disease (CHD), lung cancer, chronic obstructive pulmonary disease (COPD), and a number of other diseases. In 1997, 22 percent of adult Nebraskans reported that they currently smoke cigarettes. Smoking prevalence for adults has remained fairly steady over the past ten years, so it is unlikely that the Year 2000 objective of reducing smoking prevalence to no more than 15 percent will be achieved. However, the youth smoking prevalence rate has increased substantially since 1991. The increasing rates parallel national trends for youth smoking, emphasizing the need for educational and policy interventions to both prevent tobacco use and help current users to quit the habit.

Overweight-related conditions are the second leading cause of death in the United States. Diabetes, coronary heart disease, and some types of cancer are all causally linked with overweight. The prevalence of overweight has increased rapidly in recent years, with nearly one-third of adults in Nebraska and the nation (31 percent each) reported to be overweight in 1997. In Nebraska, this proportion has increased by more than one-third since 1989-1990 when 23 percent of adults were classified as overweight. Since the trend is strongly in the opposite direction, it is very unlikely that the Year 2000 objective of no more than 20 percent prevalence of overweight among adults will be achieved. Sedentary lifestyle and dietary factors are important and modifiable risk factors that contribute to overweight.

Regular physical activity at optimal levels greatly reduces the risk of dying from coronary heart disease and reduces the risk of developing diabetes, high blood pressure, and colon cancer in addition to improving health and quality of life in other ways. The proportion of adults who do not engage in physical activity during their leisure hours has improved in Nebraska, decreasing from 37 percent in 1987-1988 to 23 percent in 1996. This proportion matches the national estimate of 23 percent physically inactive adults in 1995. However, the current proportion is still much higher than the Year 2000 objective of no more than 15 percent inactive adults.

Prevalence of binge drinking has remained steady since 1989, with 16 percent of Nebraska adults reporting this behavior in 1997. Among high school students, however, prevalence is much higher with 42 percent stating they had participated in binge drinking during the past month. The proportion of adults who say they drink and drive has remained stable at about 4 percent since 1988. This is nearly twice the national rate of alcohol-impaired driving. Addressing lifestyle factors through educational and policy interventions will be important priorities in the next millennium.

TABLE 7

PROGRESS TOWARD SELECTED NEBRASKA YEAR 2000 OBJECTIVES

National Objective	Nebraska Objective	Nebraska						United States					
		Baseline		Current		Year 2000		Baseline		Current		Year 2000	
		Year(s)	Rate	Year(s)	Rate	Target Rate	Projected	Year(s)	Rate	Year(s)	Rate	Target Rate	Projected
1.5	Proportion of adults aged 18+ who engage in no leisure- time physical activity	1997-98	37%	1996	23%	15%	Progress toward objective	1985	24%	1995	23%	15%	No Change
2.3	Prevalence of overweight in adults aged 18+ (BMI)	1989-90	23%	1997	31%	20%	Movement away from objective	1987	26%	1997	31%	20%	Movement away from objective
3.4	Prevalence of cigarette smoking among adults aged 18+	1998	22%	1997	22%	15%	No change	1987	29%	1995	25%	15%	Progress toward objective
3.4i	Prevalence of cigarette smoking among pregnant women	1990	21%	1997	17%	10%	Progress toward objective	1985	25%	1995	14%	10%	Progress toward objective
4.1	Alcohol-related motor vehicle deaths per 1000,000 population	1989	7.0	1997	5.7	5.0	Progress toward objective	1987	9.8	1996	6.5	5.5	Progress toward objective
--	Prevalence of drinking and driving among adults aged 18+	1998	4%	1997	4%	2%	No Change	1987	2%	1997	2%	--	No objective set
--	Prevalence of binge drinking in past month - adults aged 18+ - high school students	1988 1991	17% 37%	1997 1997	16% 42%	13% 25%	No change Movement away	1990 1990	17% 37%	1997 1997	15% 33%	-- --	No objective set No objective set
5.1	Teen (aged 15-17) pregnancies per 1,000 females	1989	42.0	1997	29.5	30.0	Met objective	1985	71	1994	76	50	Movement away from objective
--	Out-of-wedlock births per 1,000 live births	1989	192	1997	258	205	Movement away from objective	--	--	--	--	--	No objective set
7.1	Deaths due to homicide per 100,000 population (AAR)	1988	3.3	1997	4.0	2.5	Movement away from objective	1987	8.5	1995	9.2	7.2	Movement away from objective
7.2	Deaths due to suicide per 1000,000 population (AAR)	1988	9.5	1997	10.0	9.0	No change	1987	11.7	1995	11.2	10.5	Progress toward objective
9.1	Unintentional injury deaths per 100,000 population (AAR)	1988	33.0	1997	30.8	29.3	Progress toward objective	1987	34.5	1995	30.5	29.3	Progress toward objective
9.4	Deaths due to motor vehicle crashes per 100,000 (AAR)	1998	19.2	1997	17.8	12.0	Progress toward objective	1987	19.2	1996	15.8	14.2	Progress toward objective
9.12	Percent of adults aged 18+ who always or nearly always wear safety belts	1988	49%	1997	77%	85%	Progress toward objective	1988	42%	1997	69%	85%	Progress toward objective

National Objective	Nebraska Objective	Nebraska						United States					
		Baseline		Current		Year 2000		Baseline		Current		Year 2000	
		Year(s)	Rate	Year(s)	Rate	Target Rate	Projected	Year(s)	Rate	Year(s)	Rate	Target Rate	Projected
11.4	Children aged 6 months to 5 years with blood lead levels of 10 ug/dL or higher – as percent of children tested	1994 1994	599 11%	1996-97 1996-97	1269 9.5%	-- 5%	Trend Unavailable	1984 --	3million --	1992-94 --	274K --	300K --	Met objective --
11.9	Proportion of population that receive a safe drinking water supply (nitrate level of 10 ppm or less)	1985-89	95%	1995-95	96%	97%	Progress toward objective	--	--	1995	98%	85%	Met objective
13.9	Percent of people served by community water systems with optimal levels of fluoride	1992	62%	1994	70%	75%	Progress toward objective	1989	61%	1992	62%	75%	Progress toward objective
14.1	Infant mortality per 1,000 live births	1985-89	9.0	1997	7.4	5.5	Progress toward objective	1987	10.1	1995	7.6	7.0	Progress toward objective
14.5	Low weight births per 1,000 live births	1985-89	55.3	1997	70.3	50	Movement away from objective	1987	69	1995	73	50	Movement away from objective
14.11	Percent of mothers receiving first trimester prenatal care	1987	82.1	1997	83.7	95	Progress toward objective	1987	76	1995	81.3	90	Progress toward objective
15.1	Coronary heart disease deaths per 100,000 population (AAR)	1987	113.6	1997	75	80	Met objective	1987	135	1995	108	100	Progress toward objective
15.2	Stroke deaths per 100,000 population (AAR)	1987	26.1	1997	23	20	Progress toward objective	1987	30.4	1995	27	20	Progress toward objective
15.14	Proportion of adults aged 18+ who had blood cholesterol checked in past 5 years	1987	45%	1997	66%	75%	Progress toward objective	1991	64%	1993	66%	75%	Progress toward objective
16.1	Cancer deaths per 100,000 population (AAR ,1970)	1990	155.4	1997	147.8	135	Progress toward objective	1986	171.3	1995	169.1	175	Met objective
16.11	Proportion of women aged 50+ receiving clinical breast exam and mammogram in past 2 years	1990	42%	1997	58%	60%	Progress toward objective	1987	25%	1994	56%	60%	Progress toward objective
17.9	Diabetes-related deaths per 100,000 population (AAR)	1986-90	31.2	1997	35.3	28.0	Movement away from objective	1986	38	1995	40	34	Movement away from objective
18.4	Proportion of sexually active teens aged 15-18 who use condoms	1991	55%	1997	63%	60%	Met objective	1988	26%	1995	37%	60%	Progress toward objective

National Objective	Nebraska Objective	Nebraska						Un		
		Baseline		Current		Year 2000		Baseline		Curre
		Year(s)	Rate	Year(s)	Rate	Target Rate	Projected	Year(s)	Rate	Year(s)
20.11	Influenza immunization rate among high risk populations aged 65+	1993	53%	1997	66%	60%	Met objective	1989	33%	1995
21.4	Percent of adults aged 18+ with no health insurance	1990	10%	1997	8%	0%	Progress toward objective	1989	16%	1996

Additional Notes: AAR = age adjusted rates (to 1940, except for cancer which is adjusted to 1970) Projections were prepared using linear regression.

CHAPTER 3

ACTION STRATEGIES FOR CHANGE

In order to address the health challenges described in Chapter 2, new and improved strategies must be developed and implemented. This chapter will outline the broad strategies that are needed to improve and expand the public health system in Nebraska. In addition to building a public health infrastructure that provides the core functions of assessment, policy development, and assurance, these strategies emphasize greater local decision-making through community assessment and planning, as well as a greater focus on prevention, enhanced quality, and accountability. The following key strategies for strengthening and transforming public health in Nebraska are listed below and are discussed in greater detail throughout the chapter. For each major strategy, specific recommended approaches are also included. Although some of the recommendations can be implemented immediately, it may take several years before others can be implemented because it will involve major system changes at both the state and local levels. In order to be successful, new partnerships must be formed and creative financing strategies need to be identified.

KEY STRATEGIES

- I. Building the public health infrastructure at the local community levels so that the core functions can be provided throughout the state.
- II. Developing new and improved partnerships between communities and the state to enhance health assessment and planning capacity at the local level.
- III. Building effective strategies to meet the needs of racial/ethnic minorities and creating a culturally-sensitive and linguistically appropriate public health system for health promotion, disease prevention, and medical care.
- IV. Developing innovative health promotion and disease prevention programs in non-traditional settings (schools, worksites, churches, and senior centers) and making health promotion and disease prevention an integral part of the state health and human services delivery system.

- V. Developing more effective monitoring and intervention strategies to protect the public from environmental health hazards and safeguard the natural environment.
- VI. Building an integrated health and medical care system that maintains an adequate safety net and improves access to high quality services for *all* people in Nebraska.
- VII. Improving accountability by developing and monitoring performance-based standards and measures at all levels and in all programs.
- VIII. Developing and implementing a promotional campaign to increase the visibility and understanding of public health activities for policy makers and the general public.

STRATEGY I – BUILDING THE PUBLIC HEALTH INFRASTRUCTURE AT THE COMMUNITY LEVEL SO THAT THE CORE PUBLIC HEALTH FUNCTIONS CAN BE PROVIDED THROUGHOUT THE STATE

A brief description of the current public health infrastructure was presented in Chapter 1. Basically, only 22 out of Nebraska's 93 counties have any type of local public health organizational capacity. While entities such as community action agencies and hospitals are providing some public health services, many key public health activities are not being provided in most parts of the state. For Nebraska to be successful in meeting public health challenges, resources must be found to expand the organizational infrastructure to provide the core functions and key activities in all parts of the state.

The cornerstones of the public health system are the core functions of assessment, policy development, and assurance. These functions are applicable to specific programs designed to focus on one particular health issue, as well as to the statewide public health system. Although the three core functions will be discussed as separate functions, it should be emphasized that in reality they are inter-linked, interrelated, and flexible enough to be molded by the communities.

In order to build the public health system around the core functions of public health, the *Infrastructure and Core Function Committee* defined these functions and some of the key activities that need to be performed under each function at the state and local level. After the activities were determined, the resources (human, informational, organizational, and financial) that are needed to build the public health infrastructure were identified. Finally, the committee selected some initial standards that can be used for measuring performance and ensuring accountability.

Each core function and the key activities for each function are described below. It should be emphasized that the list of activities is not intended to be comprehensive. It should also be recognized that at present many of the state's small local public health departments/community health systems lack the necessary resources to provide all of these activities. Although communities will have considerable latitude in determining their priorities through their community planning process, other priorities will automatically be established for governmental and non-governmental agencies through laws and regulations. In addition, when major needs or gaps are identified in an area, it is expected that the state agency will work with and encourage the community to address these needs.

Because of limited resources, it is critical to have a high degree of intra-governmental, inter-governmental, and interagency cooperation. For example, a strong partnership must exist between the state Health and Human Services System and local public health departments/community health systems. In essence, improving the health status of the population requires true collaboration between governments, communities, organizations, and individuals.

ASSESSMENT

The assessment function was defined using the following definition developed by the National Association of County and City Health Officials (NACCHO): *Assessment means the regular collection, analysis, and sharing of information about health conditions, risks, and resources in a community. The assessment function is needed to identify trends in illness, injury, and death and the factors that may cause these events. It is needed to identify available health resources and their application, unmet needs, and community perceptions about health issues.*

SERIES OF QUESTIONS ADDRESSED THROUGH THE ASSESSMENT FUNCTION

- ! What are the major health problems?
- ! How has the prevalence of major health problems changed over time?
- ! What population groups are at risk?
- ! How are the risks distributed geographically?
- ! What services are available?
- ! What are the barriers that limit access to services?
- ! How is the quality of available services?
- ! Are the health resources adequate?
- ! What do citizens perceive to be the community health issues?
- ! What do health professionals perceive to be the community health issues?

Assessment results are then shared with the community, policymakers, and the health professionals for the purpose of developing resources and health policies to solve community health issues.

KEY ASSESSMENT ACTIVITIES

ROLES OF THE STATE

- ! Establish and maintain health data and information systems.
- ! Collect and assemble health status and utilization information on all population groups and particularly racial/ethnic minorities.
- ! Analyze data and information.
- ! Forecast regional and state trends.

- ! Serve as the facilitating linkage between databases at the federal and state levels as well as private agencies (e.g., Centers for Disease Control and Prevention for health data and United States Department of Agriculture for food safety).
- ! Assist and support local health departments in local forecasting, interpretation of data, and the development of management information systems that can be used to enhance data management.
- ! Provide leadership in communicating about health issues and concerns with the public, generate public awareness (e.g., news media, community groups/organizations), and issue state health reports.
- ! Assess the supply and distribution of providers, facilities, and services.
- ! Work with communities to conduct and communicate the results of epidemiological (including outbreaks), environmental, and other investigations that assess the health of the community.
- ! Assess barriers that limit access to health care services for racial/ethnic minorities and other underserved populations.
- ! Develop evaluation measures and conduct evaluations to assess the effectiveness of public health programs and services.
- ! Evaluate the state and local capacity to perform the essential public health services using standard performance measurements.

KEY ASSESSMENT ACTIVITIES

ROLES AT THE LOCAL LEVEL

- ! Assess citizens' perceptions of community health status or what people believe to be the most important health issues facing their community.
- ! Perform health resource inventories, hold public forums, conduct health-related polls, collect information from private and non-profit providers, and engage in applied public health research.
- ! With the assistance of the state, collect data and provide local interpretations and forecasts of health status and other related information, and serve as a repository of such information for the area.

- ! Provide leadership at the local level in disseminating information to the public on community health status. Publish easy-to-understand reports and provide information directly to the news media, community officials, and other interested groups.
- ! Work with the state to conduct and communicate epidemiological, environmental, and other investigations that assess the health status of the community.
- ! Identify barriers in a community related to transportation, language, culture, education, financing, and the design of service delivery systems that affect access to health services, especially for racial/ethnic minorities and other underserved populations.

POLICY DEVELOPMENT

With some slight modifications, the definition of policy development was also taken from the National Association of County and City Health Officials (NACCHO) documents. *Information gathered from assessment activities is used to develop local and state health policies and advocate for the welfare of all individuals in the area. Policy development includes consideration of political, organizational, and community values. Good public policy development includes coalition-building, strong collaborative efforts, information sharing, citizen participation, compromise, and consensus building. The process nurtures shared ownership of the policy decisions.*

The policy development process:

- ! Further defines and refines health needs to determine priority health issues by analyzing the outcomes of assessment.
- ! Develops policies and plans to address the most important health needs by setting goals and objectives with measurable outcomes so that their impact can be evaluated.
- ! Develops alternative strategies for implementing plans.
- ! Defines and estimates the costs of personnel, equipment, and facilities that are necessary to implement the proposed policies.

KEY POLICY DEVELOPMENT ACTIVITIES

ROLES OF THE STATE

- ! Prepare a State Public Health Improvement Plan and provide an update on a periodic basis.
- ! Identify statewide priorities and goals which reflect a series of local community planning efforts.

- ! In partnership with local public health departments/community health systems, initiate and/or develop policies on health issues that require statewide action or standards (for example, ensuring clean air, safe water quality, tobacco control, prevention of alcohol and drug use, prevention of intentional injuries).
- ! Serve as a clearinghouse for the State Executive Branch, taking a leadership role in health policy, providing funding and/or support to local public health departments and other health-related agencies through grants, contracts, seed money, and collaborating with other state governmental agencies where overlapping of responsibilities exist.
- ! Develop and establish legal authority to make and implement policy decisions.
- ! Evaluate planned and current health policies regularly and communicate the findings at all levels.

KEY POLICY DEVELOPMENT ACTIVITIES

ROLES AT THE LOCAL LEVEL

- ! Ideally, health policy issues should evolve from the local level. Regional or state policy development efforts should occur with active participation from all segments of the local community. This approach is based on the assumption that the strongest public health policy is developed and owned by citizens at the local level.
- ! Provide a leadership role in choosing local priorities and developing plans in partnership with the entire community.
- ! Develop and establish legal authority to initiate, develop, and draft local ordinances or rules for environmental and other health-related issues requiring specific local responses.
- ! Develop a Community Health Improvement Plan and conduct a periodic update of the plan.
- ! Evaluate both planned and current health policies on a regular basis and communicate the findings at all levels.

ASSURANCE

The definition for assurance was developed using several sources, including documents from the Washington State Public Health Improvement Plan, the Institute of Medicine, and the National Association of County and City Health Officials (NACCHO).

State and local public health departments/ community health systems must assure their constituents that the programs and services that are necessary to achieve the agreed-upon goals are provided by encouraging actions of others (public or private), requiring action through regulation, or providing the services directly.

These efforts involve:

- ! The administrative capacity to manage resources and develop an effective organizational structure. This includes the responsibility to allocate resources to manage day-to-day operations, direct financial and personnel management systems, coordinate communication and information systems, and assure accountability for the use of resources.
- ! The capacity to ensure the quality of programs and services. This includes evaluation of programs and monitoring of the quality of personal health and environmental services, providing education, enforcing standards and regulations, credentialing health providers, licensing facilities, and achieving and maintaining access to health services in the community.
- ! The capacity to work with other organizations and agencies to assure the implementation of programs in the community that address community priorities. Many of these programs involve protecting individuals, families, and the community from threats such as epidemics and environmental contaminants and promoting healthy living conditions and lifestyles. This includes the responsibility to organize the provider community around preventive services, reduce exposure to environmental hazards, influence individual behaviors and community norms, and coordinate the delivery of public health-related health services in the community.

KEY ASSURANCE ACTIVITIES

ROLES OF THE STATE

Administration

- ! Assemble and maintain the resource (logistical, financial and human resource) tools to carry out core functions.
- ! Promote the formation of local public health departments/community health systems on county and regional levels.

- ! Develop a long-range strategic plan with measurable objectives.

Quality Assurance

- ! License health-related facilities and providers in accordance with appropriate laws.
- ! Conduct health-related inspections and provide education to regulated facilities and providers.
- ! Conduct professional training for conducting disease and outbreak investigations.
- ! Conduct training for control of exposures to health related hazards (*e.g.*, environmental toxins, occupational, injury, etc.)
- ! Develop or assist in the development of state emergency response plans.
- ! Conduct or assist local agencies in investigations of disease outbreaks.
- ! Provide professional laboratory services to analyze samples for public health protection such as water.
- ! Develop and disseminate appropriate health information to targeted populations or the state as a whole.
- ! Develop appropriate health behavior measures for educational programs.
- ! Develop and distribute specific health promotion materials, tools, and information.

Provision of Necessary Services

- ! Assure an adequate supply and distribution of high quality medical care services by assisting communities in the recruitment and retention of qualified medical care providers.
- ! Assure outreach services to populations by developing and using culturally and linguistically appropriate materials and strategies targeted to specific populations.
- ! Assure that vulnerable populations have access to health services by assuming a leadership role in developing approaches for overcoming financial and other barriers to obtaining health care services.
- ! Assure that essential public health programs (*e.g.*, immunization services, maternal and infant services, emergency and trauma services, etc.) are accessible across the state to all sections of the community.
- ! Assure that health promotion and education programs, comprehensive school health education, public education campaigns, and worksite health promotion are available.

- ! Maintain emergency response capacity for disease outbreaks, toxic spills, food and pharmaceutical recalls, emergency systems, and natural disasters.
- ! Assist communities in developing emergency medical and trauma care services to provide immediate access to life-saving interventions for illness or injury.

KEY ASSURANCE ACTIVITIES

ROLES AT THE LOCAL LEVEL

Administration

- ! Assemble and maintain the resource tools (financial and human resources) to carry out the core functions.
- ! Develop a long-range strategic plan with measurable objectives.

Quality Assurance

- ! Respond to major regional or local emergencies and enforce regulations within their authority.
- ! Collaborate with other community agencies in developing local and statewide environmental and emergency response plans, including mobilizing resources to control or prevent illness, injury, or death.
- ! Assure the competence of food handlers, solid and hazardous waste generators, on-site sewage system designers, and other individuals whose activities fall within the public health authority of the local health jurisdiction.
- ! Evaluate access to, effectiveness of, and cultural and linguistic appropriateness of personal health services, particularly for racial/ethnic minorities and other underserved populations.
- ! Assure development, implementation, and evaluation of interventions aimed at improving health-directed and health-related behaviors.
- ! Assure that prevention and control of communicable and chronic diseases are being appropriately addressed in the community through comprehensive prevention, intervention, and treatment.
- ! Provide technical assistance to local providers in improving the quality of health care services delivered to patients with various chronic conditions such as diabetes, asthma, and arthritis.

Provision of Necessary Services

- ! Collaborate with health care providers and other community service agencies to reduce barriers to accessing health care and to assure that individuals and families are linked with health services.
- ! Assure the development and provision of culturally-sensitive, linguistically sound, and age-appropriate health education and promotion programs for community health priorities.
- ! Collaborate with public and private agencies, health care purchasers, and providers to develop strategies to prevent and reduce public health risk factors.
- ! Assure provision of services which enhance healthy family relationships and child growth and development.
- ! Provide education and information to the general public about preventing communicable and non-communicable diseases of public health importance.
- ! Assure that individuals, especially children and pregnant women, are immunized according to recommended public health schedules.
- ! Work with the state to conduct prompt investigations of known disease outbreaks in the area.
- ! Develop and implement illness and injury prevention, education, and intervention programs.
- ! Provide health education and promotion programs aimed at building healthy lifestyles for all age groups.

RESOURCES NEEDED TO BUILD THE PUBLIC HEALTH INFRASTRUCTURE

In order to build an effective public health infrastructure at the state and local levels it is essential to find new resources and utilize the existing resources more creatively. This section discusses the human, organizational, financial, and data/informational resources that are necessary to carry out public health functions.

HUMAN RESOURCES

Human resources in public health include the work force and their knowledge, skills, and abilities. Public health professionals across the country receive formal training in public health, and some have a primary professional discipline such as medicine, nursing, dentistry, social work, nutrition, health education, environment, economics, and epidemiology. Recently, the federal government and other organizations have attempted to define the universal competencies for public health professionals. Although these competencies continue to evolve, Table 8 displays a current list of core competencies and skills for public health professionals. While not every public health professional may have expertise in all of these areas, most public health professionals will be familiar with all areas. These competencies are categorized under the following skill areas: analytic, communications, policy development, program planning, cultural, basic public health science, financial planning and management, computer, and other.

The public health work force in Nebraska often lacks formal training in public health. However, many of the public health professionals who work at state and local public health departments have acquired most of these skills through on-the-job training, workshops, seminars, and experiential learning. The current work force is highly committed, but the number of public health professionals is very small. At the state level, for example, the number of staff with good skills in coalition building, data analysis, and community planning is inadequate and only a few have a basic understanding of cultural diversity issues, epidemiology, and environmental public health.

At the local level, most of the smaller health departments have only one or two staff persons, and most of these are nurses. Many lack training in areas of environmental health, epidemiology, data analysis, and community planning. Some of these skills and competencies could be easily obtained through short-term training sessions. However, more trained staff are needed in the small local health departments in order to provide the core function activities.

Currently, there are many communities that are organizing diverse coalitions and groups to conduct needs assessment and develop community health improvement plans (see Strategy 2 for more information). Volunteer staff are learning the importance of coalition building, conducting needs assessment, setting priorities, and developing appropriate intervention strategies. While there have been considerable skill-building efforts, at this time it is unknown if these volunteer staff will continue in this role over an extended period of time. In order to sustain these efforts over the long-term, it is critical to recruit and retain full-time trained staff persons.

The first step in building a public health infrastructure is to increase the number of staff that possess essential public health skills. However, it is difficult to estimate the total number of public health professionals that would be needed to provide the minimal activities under the core functions. Using very conservative estimates, it is likely that at least 50 to 60 public health professionals are needed at the state and community level.

TABLE 8

COMPETENCIES AND CORE KNOWLEDGE FOR PUBLIC HEALTH WORKERS

In order to perform the core functions and key activities associated with these functions, it is recommended that local and state public health organizations hire a staff of public health workers with the following competencies and core knowledge. It is recognized that emerging community health agencies or very small local health departments may not have staff with all of these competencies and core knowledge. However, these agencies or departments should be aware of these competencies and core knowledge and be able to access them from another local agency or the state.

BASIC ORIENTATION TO PUBLIC HEALTH

- ! Core functions of public health
- ! Essential Public Health Services as stated in Public Health in America
- ! Ethics; values of public health
- ! Health economics
- ! Leadership skills
- ! Legal basis of public health

ANALYTIC SKILLS

- ! Defining a problem
- ! Determining appropriate use of data and statistical methods
- ! Selecting and defining variables relevant to defined public health problems
- ! Evaluating the integrity and comparability of data and identifying gaps in data sources
- ! Understanding how the data illuminate ethical, political, scientific, economic, and overall public health issues

COMMUNICATIONS SKILLS

- ! Communicating effectively in writing and orally
- ! Presenting accurately and effectively demographic, statistical, programmatic, and scientific information for professional and lay audiences
- ! Soliciting input from individuals and organizations
- ! Advocating for public health programs and resources
- ! Leading and participating in groups to address specific issues
- ! Using the media to communicate important public health information

POLICY DEVELOPMENT/PROGRAM PLANNING SKILLS

- ! Collecting and summarizing data relevant to an issue
- ! Stating policy options
- ! Articulating the health, fiscal, administrative, legal, social, and political implications of each policy option
- ! Stating the feasibility and expected outcomes of each policy option

- ! Deciding on the appropriate course of action
- ! Writing a clear and concise policy statement
- ! Developing a plan to implement the policy, including goals, outcome and process objectives, and implementation steps
- ! Translating policy into organizational plans, structures, and programs
- ! Identifying public health laws, regulations, and policies related to specific programs
- ! Developing mechanisms to monitor and evaluate programs for their effectiveness and quality.

CULTURAL SKILLS

- ! Understand the dynamic forces contributing to cultural diversity
- ! Interacting sensitively, effectively, and professionally with persons from diverse cultural, socioeconomic, educational, and professional backgrounds, and with persons of all ages and lifestyle preferences.
- ! Identifying the role of cultural, social, and behavioral factors in determining disease, disease prevention, health promoting behavior, and medical service organization and delivery
- ! Developing and adapting approaches to problems that take into account cultural differences

BASIC PUBLIC HEALTH SCIENCE SKILLS

- ! Defining, assessing, and understanding the health status of populations, determinants of health and illness, factors contributing to health promotion and disease prevention, and factors influencing the use of health services.
- ! Understanding research methods in all basic public health sciences
- ! Applying the basic public health sciences including behavioral and social sciences, biostatistics, epidemiology, environmental public health, and prevention of chronic and infectious diseases and injuries.
- ! Understanding the historical development and structure of state, local, and federal public health agencies.

FINANCIAL PLANNING AND MANAGEMENT SKILLS

- ! Developing and presenting a budget
- ! Managing programs within budgetary constraints
- ! Developing strategies for determining budget priorities
- ! Monitoring program performance
- ! Preparing proposals for funding from external sources
- ! Applying basic human relations skills to the management of organizations, individuals, and the resolution of conflicts
- ! Managing personnel
- ! Understanding the theory of organizational structure and its relation to professional practice
- ! Negotiation and change theory

OTHER COMPETENCIES OR CORE KNOWLEDGE

- ! Informatics and telecommunication technology

- ! Consensus building skills
- ! Strategic planning skills

SOURCE: *The Public Health Workforce: An Agenda for the 21st Century*, Public Health Service, U.S. Department of Health and Human Services, 1996; Division of Nursing, Bureau of Health Professions, HRSA and as accepted by CDC nursing colleagues, the nurses at ASTDN and other PHN leaders.

PUBLIC HEALTH TRAINING AND EDUCATION PROGRAMS

Until recently, very few courses and programs at the college and university level have been available to train public health professionals in Nebraska. Most of these programs have focused more on entry-level training and education rather than more advanced programs to train graduates for administrative leadership positions. Some of the few exceptions are the bachelors program in health education that has been offered by the University of Nebraska-Lincoln (UNL) since the 1960s and the recently upgraded community health education program at the University of Nebraska at Omaha (UNO). A masters degree program in these areas was initiated in 1979. Also, several years ago the University of Oklahoma Health Sciences Center (Department of Biostatistics and Epidemiology, College of Public Health) began teaching a series of courses to state and local public health personnel in Nebraska as well as five other nearby states. The Health Agency Training Program funded by the US Department of Health and Human Services is designed to enhance competence in applying the scientific methods of biostatistics and epidemiology to program development, program evaluation, and development of policy. Recently the emphasis for this program has shifted, with development of a "train the trainers" curriculum, audited presentations by novice trainers, and Internet support.

In the past two years, more advanced graduate level courses are being offered. In 1997, the College of Nursing at the University of Nebraska Medical Center began offering a new area of specialization called the Health Systems Nurse Specialist as part of their masters degree program. In this area, nurses receive training in community needs assessment and they learn new skills in developing intervention strategies in health promotion and prevention. Part of their training involves applying these skills while working in communities.

The University of Nebraska Medical Center (UNMC) and the University of Nebraska at Omaha (UNO) have developed a proposal to create a Master of Public Health program. The purpose of the program is to prepare students from varied backgrounds to work in the field of public health. The program builds on existing capacity and intends to focus on the core functions of public health and link learning to application through various internships. This new program will offer two areas of specialization: public health administration and community health education. Although there will be some training in epidemiology, at present it is envisaged that it will not be offered as an area of specialization. It is anticipated that the Board of Regents will consider the final proposal in the fall of 1999. If it is approved, students could begin taking classes in the year 2000.

In 1998, Creighton University began offering a Master of Health Services Administration program. This interdisciplinary program is designed to prepare graduates to assume leadership positions in health services organizations (*e.g.*, hospitals, long-term care facilities, managed care organizations, insurance industry, community health organizations, medical group practices, and integrated delivery systems). The curriculum emphasizes management and administration but also includes health economics and quantitative methods.

In order to supplement the training and formal educational programs that are currently being offered or proposed, a Community Leadership Institute will be formed. The purpose of the Institute is to provide training for public health officials working in the field, state public health administrators, as well as volunteer community leaders who are members of formal boards and corporations or who are involved in various public health projects. The training will involve a wide variety of areas such as an orientation to public health for new board and coalition members, setting priorities, promoting cultural competency, and information on various environmental issues.

Given the current and proposed new training and education programs in public health, Nebraska should be able to train the vast majority of the public health professionals that it needs. Because none of the programs at present include an epidemiology specialization, state and local agencies will have to continue to recruit epidemiologists from other states until state is able to prepare well-trained epidemiologists. These programs should also stimulate new research opportunities for both faculty and students. Ideally, many of these research efforts would involve working with communities around core function activities.

Finally, it is critical to have more training and educational programs available in rural areas. Without a local option, the time and cost of travel becomes prohibitive for most rural residents. With the Internet, teleconferencing sites, and local colleges, the potential exists to offer these programs to reach all parts of the state.

ORGANIZATIONAL RESOURCES

Organizational resources in public health include a network of federal, state, and local public health departments/community health systems. An effective public health system also includes mechanisms for linking public, private, and voluntary organizations through community leadership and collaborative relationships.²¹ From an organizational perspective, Nebraska is different from most other states in that there are relatively few local health departments operating across the state. Currently, local health departments cover only 22 of the state's 93 counties. As previously discussed, there are other agencies such as community action agencies, hospitals, and other community health-related agencies that are providing some of the core public health functions and essential public health services.

Given the current public health infrastructure, various models and approaches could be used to expand present capacity at the local level. Building capacity should be based on the following premises:

- ! Because so many new initiatives are emerging at the community level, the initial focus of infrastructure development should be on developing local or regional public health departments/community health systems as compared to building state capacity in the six regions.
- ! The preferred model is to develop local public health departments, but the "right" model for public health will differ from one community to another, depending on the local needs, resources, and

readiness. Regardless of the type of structure developed, the focus should be on providing the key activities under the core functions.

- ! Because of the limited resources in a single community or county, multi-county approaches may offer the best option of sustaining a public health organization over the long run.

It is important to recognize that for many communities it may take several years to build the organizational capacity. Regardless of the type of organizational structure selected by the community, there are key success indicators that are reasonably good predictors of long-term sustainability. Some of these include:

- ! It should be a formal organization (*e.g.*, a 501(c)3 non-profit corporation or political sub-division).
- ! It should have a board or committee that represents all of the major segments of the community.
- ! It should have paid staff to adequately address the core functions and provide accountability.
- ! It should be capable of conducting a needs assessment and developing a Community Health Improvement plan.
- ! It should have access to funds to implement high priority projects.

Although short-term and long-term funding is critical for the development of any organization, the most important element is the commitment and support of the residents in the community. A successful public health organization must also assume a leadership role in developing coalitions and building support to resolve community-wide problems.

REGIONAL CAPACITY

The Community Health Care Act provides a model for building regional capacity to assure that public health services are available throughout the state. The vision for the Community Health Care Act is to have a core set of three or four state staff (*e.g.*, an environmental specialist, an epidemiologist, a registered dietitian, a public health nurse, a registered sanitarian, or a certified health educator) available in each of the six regions to provide basic public health services. By locating the staff outside of Lincoln, they would become more familiar and knowledgeable about the public health issues within the region. Regional public health offices could provide technical assistance to these emerging local public health entities and facilitate better state and local collaboration to leverage resources. These offices could also provide public health services in areas where local public health organizations do not exist. However, the primary focus of regional offices would not be on the direct delivery of services.

INFORMATION RESOURCES

Data and information systems are important elements of any public health infrastructure. Accurate and timely data are needed to conduct community and statewide needs assessments as well as providing a basis for developing health policies and appropriate intervention strategies. In the past five years, several new databases have been created, including inpatient and outpatient hospital discharge data, E-code data for all patients with injuries that use the hospital emergency room, and encounter data from all physicians' offices that are part of the Medicaid managed care program.

Despite these new databases, many gaps with regard to precision, accuracy, completeness, and quality still exist. For example, there is no systematic collection of physician encounter data as well as mental health and substance abuse information. It is also difficult to track changes in health care costs and evaluate the quality of health care services under both managed care and fee-for-service systems.

In addition to gaps in data, there is also the problem of inter-linking databases together. For example, it is possible to link Medicaid data with birth records and WIC data. However, such a link does not exist at present. Linking data sets together would enable public health staff to better pinpoint health needs and to target resources more efficiently and effectively.

Another need is to make the data more widely accessible. One area where progress has been made is placing the updated county profiles on the Internet. These county profiles were widely distributed in the past, but Internet accessibility will allow even more Nebraskans to have access to these data. Plans are also underway to build a *data warehouse*. The purpose of a *data warehouse* is to share aggregate information across the health and human service system and to allow individuals access to data without technical programming. Although *data warehouses* are expensive, costing over \$300,000, it should be possible to move incrementally toward building such a system.

Finally, the HHS System needs to take advantage of a *Geographic Information System (GIS)*. GIS is a system for describing and displaying data on a map. It presents the data in an easy-to-understand manner. With GIS, it is possible to show rates of hospitalization and mortality rates in a particular county over time. This system will permit analysis at any geographic level (*e.g.*, state, county, ZIP code area, census tract) and should assist in enhancing the quality of policy decision-making and surveillance investigations. Currently, an internal committee is examining the most effective ways to manage and use GIS.

LOCAL LEVEL

Most local health departments rely heavily on data that are collected at the state level. While state data are collected from several localities, usually these data are not available to local agencies. For example, birth and death records, drinking water quality, and information from the cancer registry can be easily disaggregated to the local level. In many areas, however, data that are available are not analyzed and reviewed by local coalitions or boards of health. Also, in comparison to the state level, there are several other gaps at the local level. For example, most local areas lack information on behavioral risk

factors, financial and cultural access, mental health and substance abuse problems, and consumer perceptions of community issues.

Although most local health departments will not be able to fund expensive new data collection activities, the Internet and the data warehouse as explained in the previous section provide opportunities to distribute and share data more widely. With some technical assistance from the state agency, as well as other partners such as researchers in academic settings, it should be possible to analyze more local data. However, local agencies are responsible for using the data to develop support for changes in local policies or formulating appropriate intervention strategies.

Finally, many local health departments also lack the computer hardware and software as well as the technical expertise to utilize the emerging new technology. Although the state can easily provide more training to local staff, the funding to purchase the hardware and software will be more difficult to obtain in the near future. However, in order to bridge the gaps between state and local agencies it is imperative to build and enhance technical capacity at the local level.

FINANCING RESOURCES

In order to build and expand the public health infrastructure in Nebraska, more fiscal resources are needed to support many basic public health infrastructure activities. These activities include hiring more qualified staff, collecting and assembling health-related data, conducting needs assessments and other community planning activities, providing training opportunities for the work force, and establishing local health departments/ community health systems. Obtaining these resources from state and local governments will be difficult given the current low level of support. According to a 1994 report from the American Public Health Association, Nebraska ranked last in per capita government spending on health at \$26.61. Per capita spending in the next lowest state was \$39.31. Nebraska ranked 46 out of 51 in the number of public health workers per capita.²²

Building an effective public health infrastructure will involve a greater commitment of resources from state and local governments. However, public health leaders must also be creative in leveraging funds from various other sources. One of the potential sources of funding is the *Excellence in Health Care Trust Fund*, which was created by the Legislature in 1998. With interagency transfer funds from the federal government and the state allocation from the recent tobacco settlement, the annual investment income from this trust fund has the potential to support most of Nebraska's public health needs.

The trust fund can be used to award grants in several areas, including the provision of public health services, conversion of nursing home facilities to assisted living facilities, improvements in the statewide trauma system and emergency medical services, the education and recruitment of health professionals, the development of telemedicine capacity, and the development and expansion of community-based aging services. A more complete list of potential projects and programs is contained in Appendix B.

Funding decisions for trust fund dollars will be made by a six-member Excellence in Health Care Council. The Governor appointed members of the Council in April of 1999. The director of the HHS System's Department of Finance and Support is an ex-officio member. Although the trust fund offers enormous potential for providing a funding base for financing infrastructure development, it is uncertain at this time whether this will be a high priority for the Council.

PERFORMANCE MEASURES

A few states are in the process of beginning to develop performance measures to evaluate the progress, efficiency, and effectiveness of their public health agencies at the state and local levels. At the national level, the Centers for Disease Control and Prevention (CDC), in partnership with the National Association of County and City Health Officials (NACCHO) and the Association of State and Territorial Health Officials (ASTHO), convened a work group to develop some national public health performance standards in 1998. Performance measures developed by the work group were based on the 10 Essential Services so that health agencies could evaluate their progress in meeting the national Healthy People Year 2010 Objectives.

The primary purpose of these state and national initiatives is to answer two primary questions: What do you want to achieve, and how can you assess progress toward those achievements? In order to answer these questions, performance measures/indicators and performance standards must be developed. Performance measure is generally defined as a quantitative indicator that can be used to track progress toward an objective or goal and to detect change over time as well as differences across programs. Performance measures or indicators are needed to determine whether performance standards are met. A performance standard is a generally accepted, objective standard of measurement that is supported through findings from expert consensus and based on specific research and/or documentation in scientific literature. These standards of measurement are then used to compare a local or state agency's level of performance.

COMMON BARRIERS

Although some progress has been made in developing performance measures, there are no uniform standards of acceptable performance measures available to evaluate public health agencies. Performance measures and standards are difficult to develop because of several common barriers. Some of these barriers include:

- ! Some public health staff and professionals do not understand the value of these efforts and resist using them.
- ! There is a general and specific lack of understanding about how to design such a system.
- ! There is uncertainty about whether and how to link performance measurement to resource allocation.
- ! It is difficult to design a system and develop measurable indicators.
- ! There is a lack of capacity and will to undertake performance measurement.
- ! Major challenges exist in attaining a political consensus on this issue.

! There is a tendency to overlook the visionary strategies for improvement.

NEBRASKA STANDARDS

The Infrastructure and Core Function Committee reviewed some of the national and state initiatives on performance measurement. The committee concluded that these initiatives are still in developmental stages although they should be closely monitored. They also thought that although many of the performance measures and standards can be applied to Nebraska, there are also several standards that are not appropriate because, for the most part, the capacity of local health departments in Nebraska is not comparable to those in most of the other states. However, they identified some preliminary developmental standards that could be used by the state public health agency and local health departments/ community health systems to assess their performance. These preliminary standards are shown below.

PRELIMINARY STANDARDS

ASSESSMENT

1. Accurate and timely health data are available and accessible to the public.
2. Adequate resources (human and information systems) are available for the collection and analysis of data.
3. All major segments of the community participate in the state and local health planning process.

POLICY DEVELOPMENT

1. Public Health Improvement Plans are developed at both the state and local levels.
2. Both state and local public health departments/community health systems provide leadership roles in developing and implementing priorities and plans in partnership with representatives of all major segments of their constituent community members.

ASSURANCE

1. State and local public health departments/community health systems develop internal long-range strategic plans with measurable objectives.
2. Prevention and protection services are adequate to assure safe and healthy living environments for all people in Nebraska.
3. The combined efforts of the local health department, the state, and the community are effective in assuring access to, and quality of, health services, particularly for racial and ethnic minorities and other underserved populations.

It should be emphasized that these standards represent a developmental approach and should be used as the foundation to develop standards for the system as a whole. Also, corresponding specific measures or indicators need to be developed for each standard.

RECOMMENDATIONS

1. The Policy Cabinet of the HHS System should designate the building of public health infrastructure as a top priority in their requests to the Excellence in Health Care Trust Fund.
2. In order to stimulate community health planning and develop local health departments at the local level, the HHS System should consider providing local areas with a small amount of planning and startup money (*e.g.*, \$20,000 - \$30,000).
3. In order to assure a stable, essential public health infrastructure at the community level, the Legislature should consider providing ongoing funds through an annual per capita funding mechanism or another equitable funding mechanism. Some possible funding sources could include the Excellence in Health Care Trust Fund and the Nebraska Environmental Trust Fund.
4. The Chief Medical Officer should be given sufficient authority to build the public health infrastructure and to coordinate public health work across the system's three agencies and other governmental agencies.
5. In order to provide sufficient resources at the state level to assist local communities in their planning and implementation efforts, the HHS System should:
 - ! Expand its capacity to provide technical assistance and training to local communities in such areas as epidemiology, integrated data systems, data analysis, health promotion programming, environmental risk assessment, and cultural competency.
 - ! Provide leadership, technical expertise, and administration to implement and build capacity. In order to better support community-planning efforts, it is recommended that the HHS System should examine whether a new Division of Public Health and Community Planning should be established. The division would work closely with the Office of Rural Health and the Office of Minority Health. Staff from each of these areas currently assist communities with planning and the core public health functions.
 - ! Link databases together (*e.g.*, Medicaid encounter data and birth certificate files) and make these data more accessible through the Internet and a *data warehouse*. Seek out additional sources of funding to invest in computer hardware and software for local health departments/ community health systems.
 - ! Work more closely with UNL, UNMC, UNO, Creighton University, and other colleges and universities to identify research projects of common interest.

- ! Develop and distribute a manual that communities can use as guidance for establishing and maintaining local public health departments in accordance with state statutes.
 - ! Work with the Nebraska Partnership of Local Health Directors (NPLHDs), the Nebraska Public Health Association (NPHA), the Nebraska Minority Public Health Association (NMPHA), the Nebraska Association of Hospitals and Health Systems (NAHHS), Association of Nebraska Community Action Agencies (ANCAA), and other organizations to develop a Community Leadership Institute to supplement the formal training programs at Nebraska's colleges and universities. These training programs should include building cultural diversity and reach out to culturally diverse populations.
 - ! Explore ways to provide financial assistance for working public health professionals who are interested in advanced training in public health.
 - ! Monitor and communicate the availability of grants and provide technical assistance to communities in preparing grant applications.
 - ! Most funding currently available for public health activities at the state level is for categorical programs (the licensure and credentialing of health professionals, environmental water safety, immunization, WIC, family planning). State officials should work with the federal government to make these funds as flexible as possible without jeopardizing the delivery of specific services and at the same time identify ways to better use other funding sources. For instance, the state should investigate using TANF funds to support public health activities as some other states have done.
 - ! Form a task force to review and evaluate the state's public health laws. Some of these laws are out-of-date and inconsistent with the direction of current public health activities.
 - ! Communicate more clearly with the general public about how public health is organized within the HHS System.
6. A high-level task force should be formed to further develop performance standards and indicators to better measure the progress and effectiveness of the public health infrastructure. Particular attention should be given in aligning these standards in conformance to the national public health standards currently being developed as part of the national Healthy People Year 2010 Objectives.

STRATEGY II – DEVELOPING NEW AND IMPROVED PARTNERSHIPS BETWEEN COMMUNITIES AND THE STATE TO ENHANCE HEALTH ASSESSMENT AND PLANNING CAPACITY AT THE LOCAL LEVEL

All across the country, in communities large and small, people are coming together to talk about their vision for the future. They want to improve the quality of life for the generations to come. People are expressing the need to craft broad-inclusive processes to address the concerns and challenges that face their communities. As a result, the community health assessment process has been designed to improve community health status; to reduce health disparities among community members; to establish partnerships between health care providers, government, and business; to strengthen the ability of the community to effectively address and resolve problems; to provide opportunities for community members to take a leadership role, and to take ownership to ensure that services respond to their community-specific needs.

COMMUNITY HEALTH IMPROVEMENT FRAMEWORK

There have been numerous community assessment tools developed within the traditional public health structure. The *Assessment Protocol for Excellence in Public Health (APEX)* and *Planned Approach to Community Health (PATCH)* have helped to build local capacity to facilitate broad based community planning processes. In 1995, Nebraska began a collaborative effort between the Nebraska Association of Hospitals and Health Systems, the Nebraska Department of Health, the Nebraska Medical Association, the Association of Nebraska Community Action Agencies, and the County and District Health Departments to develop a community planning tool. *Building Partnerships and Connecting Communities* was the document developed and continues to serve as the framework for community planning in Nebraska.

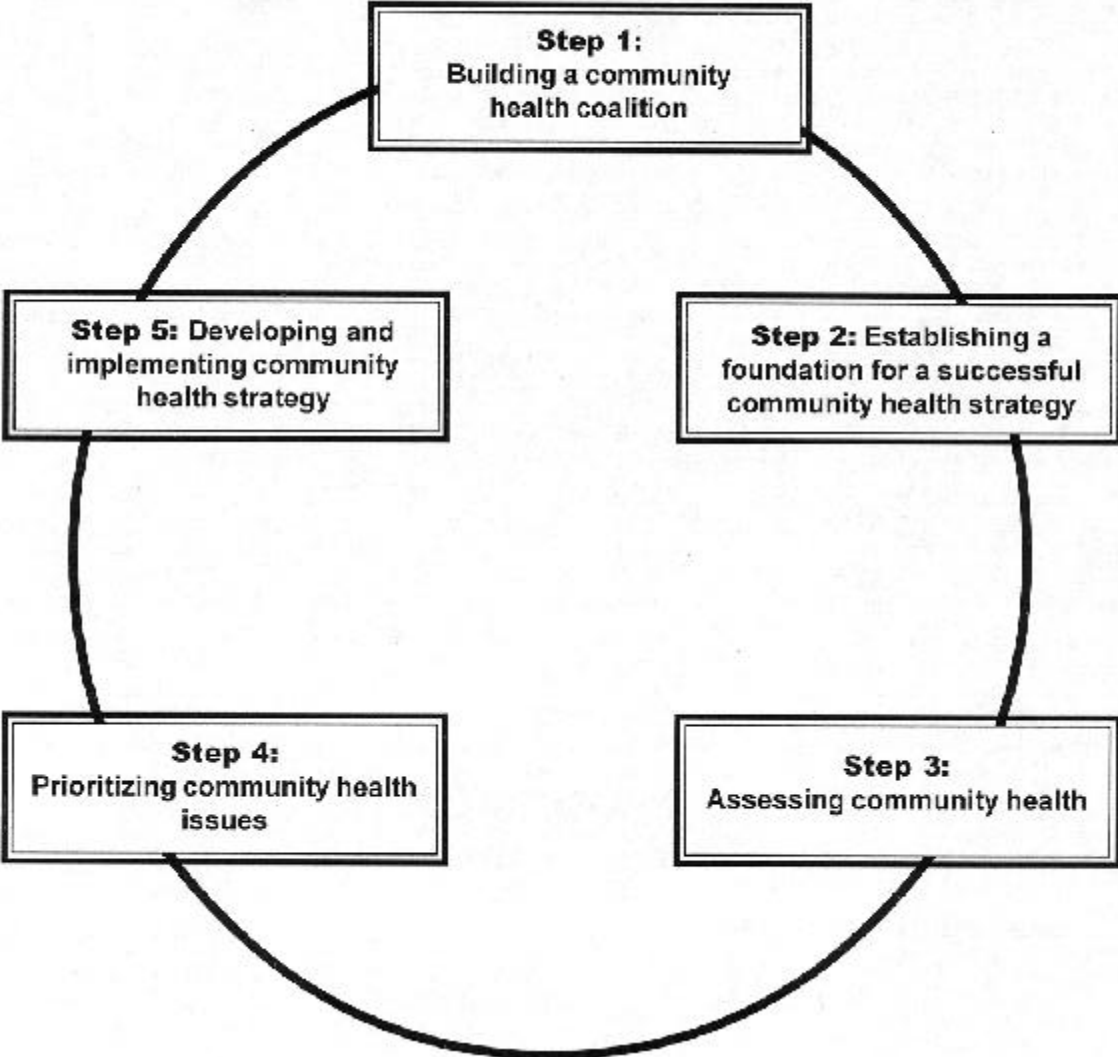
Building Partnerships and Connecting Communities utilizes the use of a collaborative problem-solving process that allows a broad spectrum of community stakeholders to create a vision of community health and implement a plan to turn its vision into reality. The process of working toward more competent and healthier communities must bring together a group that includes representatives from the private, public, and nonprofit sectors. Each participant has a stake in improving the community's governance and programs, using assets and resources that communities have available. The group needs to be culturally and professionally diverse, and all must have a commitment to collaboration as a mechanism for creating a better community for all. Using collaborative approaches helps communities improve their education, housing, economic development, transportation, environment, health, and quality of life in a manner that benefits all segments of the society.

The process for assessing and improving community health is a continuous one and provides a framework for organizing and conducting a comprehensive community assessment that fosters broad-based community involvement. The community health improvement process, from planning strategies through implementation efforts, should be undertaken with the community and is shown in Figure 3. Each

of the steps in the planning process is described in a separate manual. An overview of each manual is provided in Appendix C.

FIGURE 3

STEPS TO CREATE COMMUNITY HEALTH IMPROVEMENT PROCESS



SPOT-LIGHT ON NEBRASKA COMMUNITIES

The Turning Point Initiative has been committed to working with communities who have convened hospitals, private businesses, public health providers, education, human service organizations, religious institutions, and other community organizations to conduct a needs assessment, prioritize needs, develop and implement strategies, and monitor the performance of their community. The communities featured are at different stages of mobilizing and organizing the community in their unique collaborative efforts to improve health. The two communities featured below have also received Turning Point grant funds.

BUFFALO COUNTY COMMUNITY HEALTH PARTNERS

The Buffalo County Community Health Partners (BCCHP) is a community-based initiative that began in 1995 when more than 20 organizations were invited by Good Samaritan Health Systems to share their ideas and develop a road map to assess and improve the health status and quality of life in Buffalo County. What started as a small group, grew to more than 150 people volunteering over 5000 hours to create a community health improvement plan for Buffalo County. A key guiding principle of this collaboration was to develop a shared vision, that is, a compelling statement of what they wanted to create.

The assessment process included an analysis of demographic and outcome indicators, focus groups with a cross section of residents of all age groups, and an adult behavior risk factor survey to look at lifestyle behaviors. Through the process, 31 goals were identified and eventually merged into 15 goals by using two criteria: the existence of measurable data to support the goal and a broad base community interest for the goals. The 15 goals focus on five broad vision elements: 1) strong sense of community, 2) holistic health, 3) education, 4) environment, and 5) economy. To introduce the goals to the residents, a Healthier Communities Summit, has been held each year since 1996. This is a forum for celebration of successes and an opportunity to gather input on new goals.

The Buffalo County Community Health Partners has structured themselves into a virtual organization with by-laws. There are four core committees: an executive committee, a planning and measurement committee, a resource committee, and an implementation and communications committee. They have been successful in acquiring financial resources and in-kind donations that cover their costs and directly fund programs that will help achieve their vision.

NORTH CENTRAL COMMUNITY CARE PARTNERSHIP

The North Central Community Care Partnership (NCCCP) began organizing and mobilizing nine counties along Nebraska northern boarder in 1997. Because of the geographic mass and rural nature of the nine counties, defining how they would organize their work has taken an “out of the box” thinking. One key factor in the organization process has been the time commitment involved in getting to know and trust

other members and listening to and sharing ideas with one another. A Coordinating Committee of community leaders has been established that not only represent the major interests of the community but also have a vision of the community that extends beyond their individual constituency. The NCCCP views itself as a working group and a driver for change. A mission statement has been developed and several community and regional meetings have been held. These meetings have opened the door for individuals and organizations to begin the dialogue about what public health means to them. They are now in the process of assessing the health needs in their communities.

In addition to the Turning Point communities, several other Nebraska communities are actively engaged in community assessments. These communities include Omaha-Douglas County, Lincoln-Lancaster County, Norfolk- Madison County, Grand Island-Hall County, Scottsbluff, Fairbury-Jefferson County, Adams-Webster-Clay-Nuckolls Counties and Hastings. Contact has been made with thirty-three communities that are interested in pursuing this community assessment process.

COMMUNITY ASSESSMENT TEAM

An effective community assessment process involves a community and state partnership with sufficient resources at the community level. The involvement of local leaders and local institutions increases the community's sense of ownership and provides a greater assurance that the plan will be implemented. There is also a greater likelihood that the goals and intervention strategies will be tailored to meet the unique needs of the community. In addition, policy makers will have a stronger incentive to follow the recommendations of a diverse coalition because there is "buy-in" from several major segments of the community.

The State has a role on the assessment team and can contribute in the following ways:

- ! assist with coalition building,
- ! establish and maintain health data and information systems,
- ! collect and assemble health status and utilization information,
- ! assist in analyzing data and information,
- ! forecast regional and state trends
- ! provide technical assistance for local forecasting and interpretation of data
- ! provide technical assistance in the assessment process
- ! assist with the development of evaluation processes and outcome measures, and
- ! assist with intervention and funding strategies.

It is the community that provides the input to the leadership for building the stakeholder team and maintaining the momentum throughout the process. The leadership of the assessment team creates the process for collaboration, designs the organizational structure, determines the meeting guidelines, defines the roles and responsibilities of the coalition, creates a process for communication, coordinates the budget and funding, promotes the effort, and determines the best way to celebrate accomplishments.

COMMUNITY CAPACITY

A strong community coalition, a group of individuals who work together to achieve a common goal, is needed to lead the community assessment process. A "team leader" or a representative from a "lead agency" needs to be identified to recruit stakeholders and maintain momentum, as well as to provide structure for dividing labor and defining roles and responsibilities. Although people, not money, are the key ingredients for success, the coalition will require money to finance its administrative operations as well as implement its intervention strategies. For many communities, it takes considerable time and effort to build sustainable coalitions.

PERFORMANCE MEASURES

It is critical for communities to assess current performance on priority issues or the results of efforts over time. Furthermore, this information needs to be shared with the community as a whole. To bring about improvements in the community, people need to have indicators of performance on such issues as educational performance, air and water quality, population density, economic outcomes, morbidity rates, mortality rates, and other traditional public health measures. By assessing such quality of life indicators and charting progress over the years, communities can give themselves the advantage not only of defining their target but also recognizing when it is achieved.

In an effort to assist communities with performance measures, the Nebraska Association of Hospitals and Health Systems (NAHHS) and Health and Human Services System have a new, state-of-the-art software tool called the *Outcomes Toolkit*. *Outcomes* is a product of the Health Forum and developed by Macro International. It provides communities with a comprehensive, collaborative approach to planning and evaluating community efforts and reports improvements in community health and quality of life over time. *Outcomes* provides guidance in:

- ! creating a shared vision,
- ! identifying priority indicators,
- ! setting measurable targets for each indicator,
- ! selecting data collection methods,
- ! analyzing results,
- ! developing action plans, and
- ! generating reports

The unique features include:

- ! allowance for the development of a community-wide database on health, quality of life, economic vitality, and community capacity,
- ! guidelines for determining outcomes,
- ! hyperlinks to important sources of information on the Internet,
- ! charting and graphing capabilities, and

! integration capabilities with other applications.

The core of *Outcomes* is the *Community Profile*, a sophisticated data compiler and reporting mechanism that serves as a central database for a community or a region. All entered data, narrative descriptions about specific initiatives, goals and objectives will ultimately contribute to the *Community Profile* for the state.

Currently, a demonstration pilot project is being conducted with four community coalitions to utilize *Outcomes* in documenting performance. If this pilot project is successful, *Outcomes* can be implemented throughout the state.

RECOMMENDATIONS

The HHS System Should:

1. Provide leadership, technical expertise, and administration to implement and build capacity. In order to better support community planning efforts, it is recommended that the HHS System examine whether a new Division of Community Planning and Public Health should be established. The division would work closely with the Office of Rural Health and the Office of Minority Health. Staff from each of these areas currently assist communities with planning and the core public health functions.
2. Provide sufficient resources to assist local communities in their community planning and implementation efforts. It is recommended that a community assessment be conducted every five years that is sensitive to community needs, values, language and cultural differences. Community input can be assured by monitoring and analyzing community health status through the use of the *Outcomes Toolkit*.
3. Provide local areas with planning and start-up funds in order to stimulate community planning at the local level. Communities also need to be encouraged to apply for funds through the *Excellence in Health Care Trust Fund*.
4. Provide the *Outcomes Toolkit* to communities invested in community planning along with the necessary training to effectively use the toolkit.
5. Establish and maintain health data and information systems that meet the needs of the community and will adhere to confidentiality requirements. The system needs to be accessible via a computer network.
6. Assure that health-related data are accurate, complete, and available in a timely manner.
7. Provide analyses of health-related data and assist with the forecast of health-related trends.
8. Develop a Nebraska Community Survey tool that identifies concerns and needs of the community including the concerns of ethnic and minority population.
9. Organize an annual *Healthier Communities Summit* to learn and exchange ideas about what works, what doesn't and why.
10. Investigate the need for a statewide *Community Leadership Institute* or the provision of scholarships to attend similar Institutes in other states.
11. Serve as a clearinghouse for new and improved community planning technologies.

The Community Should:

1. Develop a Community Health Improvement Plan that assures collaboration and consensus building on health-related issues.
2. Assure that the community health assessment process is sensitive to the needs, assets, values and cultural differences of the community.
3. Develop a financial plan and secure funding sources to finance the administrative needs and implement intervention strategies.
4. Collect health-related data that will help identify the local needs of the community.
5. Communicate with policy makers to inform them of priorities, and strategies for action and the impact on the community.
6. Monitor process toward achieving outcomes and report to the community on an annual basis.

STRATEGY III - IMPROVE THE HEALTH STATUS OF RACIAL/ETHNIC MINORITIES AND CREATE A CULTURALLY-SENSITIVE AND LINGUISTICALLY APPROPRIATE PUBLIC HEALTH SYSTEM FOR HEALTH PROMOTION, DISEASE PREVENTION, AND MEDICAL CARE

In Chapter 2 major disparities were found in the health status when a comparison was made between racial/ethnic minorities and the white population. There are several underlying causes of higher levels of disease and disabilities in racial/ethnic minority communities. These include poverty, lack of access to health care services, environmental hazards in homes and neighborhoods, high risk jobs, policies, and lifestyle behaviors.

Eliminating racial/ethnic disparities in health will require more than effective programs and initiatives to prevent disease, promote health, and deliver more appropriate health and medical care services. It will also involve improved collection and analysis of standardized data to correctly identify all high-risk populations and monitor the effectiveness of health interventions targeting these groups. Finally, improving access to prevention and treatment services will require working more closely with communities to implement culturally and linguistically relevant intervention strategies.

In order to achieve this goal the following four areas were the central focus in guiding the discussions, strategies, and recommendations of the Turning Point Minority Health Committee. Specific recommendations were identified and ranked within each area.

- ! Information and Data Collection
- ! Community-Based Disease Prevention Programs
- ! Health and Medical Care Delivery System
- ! Health Professions

INFORMATION AND DATA COLLECTION

Current health-related data and information systems on racial/ethnic minority populations contain major gaps and are very fragmented. In many surveys, racial/ethnic minorities are under-represented and, in some cases, data on race and ethnicity are not collected. For example, the current Behavioral Risk Factor Survey (BRFS) under-represents some racial/ethnic minority population groups. Also, the hospital discharge data system does not collect any specific information on race or ethnic origin. In order to measure the progress or reduction in health disparities, there must be adequate data and information concerning health status and underlying causes of disease and disability, patterns of health care utilization, the quality and affordability of health care services, and health outcomes for racial/ethnic minority populations.

In addition to adequate data, it is critical for racial/ethnic minorities to routinely participate in the planning of data collection concerning health, illness, and the health care system. Racial/ethnic minority communities should also be involved in interpreting the results and using the data to develop policies

and intervention strategies to alleviate the most pressing health problems in their communities. Involving racial/ethnic minorities in the interpretation of the results and developing intervention strategies will result in greater sensitivity to the unique cultural attributes of the population.

Besides the need to make general improvements in the collection of data on racial/ethnic minorities, there are several special challenges related to the collection and reporting of health information on refugee and immigrant populations in Nebraska. The most noticeable of these includes the fact that many of the refugee groups do not clearly fit into the classifications for the four major racial/ethnic minority groups.

According to the Nebraska Health and Human Services System (HHS System), refugees are individuals or families who seek safety outside their country because of well-founded fear of persecution on account of race, religion, nationality, membership in a particular social group, or because of political opinions. In addition, refugees face the most difficult situation possible when they arrive in this country. Their sense of identity is lost and there is little or no prospect of ever going home. They have several needs, including health, education, economic, and others that need to be addressed in cultural and linguistic contexts. Refugees are sometimes not classified consistently making it difficult to discern their country of origin. This can create problems in determining their cultural and linguistic orientation.

Within Nebraska there are twenty-four known different refugee groups. The largest of these groups are the Vietnamese, Amerasians, and Iraqis. According to the Nebraska Refugee Resettlement Program, from 1979 through 1996, the largest groups of refugees being resettled in Nebraska were the Vietnamese, with the exception of 1989 and 1990, when Amerasians were the largest group. During 1997, Iraqi refugees had the largest number and in 1998, refugees from Bosnia and Herzegovina made up the largest group.

During 1980 through 1998, 2,577 Vietnamese, 1,014 Amerasian, 673 Iraqi, 507 Cambodian, and 353 Bosnian and Herzegovinian refugees have been resettled within the State of Nebraska. It is important to note that these numbers do not reflect refugees that have migrated after being resettled in another part of the United States, which could considerably alter the number of refugees in this state. An example of this is the Sudanese population in Omaha, which is more than 1,000, while the number of Sudanese recorded being resettled in Nebraska by the Refugee Resettlement Agency is only five.

According to the Departments of State, Justice, and Health and Human Services, in the *Proposed Refugee Admissions for Fiscal Year 1998: Report to the Congress*, for FY-1996, the median age for Vietnamese refugee arrivals was about 27 years with slightly more males than females represented in the refugee population (48.3 percent female vs. 51.7 percent male). The report also indicated that the median age for Iraqi refugee arrivals was about 26 years with majority being males (24.7 percent female vs. 75.2 percent males). Additionally, the report indicates the median age for refugee arrivals from the former Yugoslavia was 27.2 years with the female and male representation about the same (48.0 percent female vs. 51.9 percent male). The primary resettlement sites in Nebraska are Lincoln and Omaha. However, refugees have also resettled in a number of other sites throughout the state.

Given these challenges it is perhaps not surprising that health assessments have never been conducted on refugee and immigrant populations. This lack of health information on refugee and immigrant populations in the state makes it very difficult to focus efforts and have baseline information. An assessment could be conducted with the aid of Mutual Assistance Association groups and refugee resettlement agencies. However, due to the diversity one of the difficulties lies in developing an appropriate universal assessment tool.

Another population that provides a real challenge to the health system is the migrant and seasonal farmworkers (MSFW) population. They live and work in remote locations in Nebraska where available health and dental care is extremely limited. Poverty, inadequate health insurance, health care costs, transportation, existing policies, and misunderstanding about available services all acutely affect the ability of potential Migrant/Seasonal Farmworkers to obtain preventive and early detection health services. These barriers are exacerbated by the potential fears and misconceptions of recent immigrants, clients with poor English-language skills and/or undocumented citizens. These barrier difficulties are compounded with the profoundly simple barrier that disease prevention and early detection of disease are low priorities when survival is a day-to-day struggle.

The MSFW is a most challenging population to track and serve, and in Nebraska this is exacerbated by the very short farming season, fickle weather, and small pockets of workers found across the state. The Public Health Service estimated in 1990 that there were 4,500 MSFWs in the Panhandle area and close to 19,000 in the state. These numbers vary dramatically from those estimated by the Nebraska Job Service and those reported by employers, health, and social service agency client rosters. There has also been a shift in the demographics of the migrant and seasonal farmworkers target population. In the west, the migrant population generally involves multi-generational families from Texas who return home after their work season. In central and eastern Nebraska, younger, single men and families work in small isolated clusters on sequential jobs of short duration.

An additional demographic change that has occurred and continues to occur is the number of former migrant/seasonal farm workers who have settled in areas where meat packing companies are located. Agricultural-related employment and the meat packing industry have attracted large numbers of former migrant/seasonal farm workers (mainly Hispanic/Latino) and their families from outside the state. A significant number of these "newcomers" involve families with children who have health related needs.

A pilot Client Profile survey conducted during the 1996 season by The Nebraska Migrant/Seasonal Farmworker Health Program Advisory Board indicated that the most common health care needs included eye problems, diabetes, pesticide exposure complications, cardiovascular disease, and occupational health injuries. Besides the special racial/ethnic minority subgroups elaborated above, the basic group includes people who are recent legal immigrants. Sensitization on American culture, health problems in the state, and other forces for integrating in a new culture are mandatory needs. Educational, policy, and environmental programs are needed for this group. The common thread and greatest need among racial/ethnic minorities, refugees, recent legal immigrants, and migrant and seasonal farmworker is the lack of good reliable health data and limited access to quality health care.

COMMUNITY-BASED PREVENTION PROGRAMS

Reducing the disparities between racial/ethnic minorities and the white population will require targeted prevention initiatives at the community level. It will also require more resources at the state and federal level. Congress is considering an additional \$400 million to develop new approaches and to build on existing successes to help fund the President's Initiative on Race. This initiative focuses on eliminating health disparities in the following areas: infant mortality, diabetes, cancer screening and management, child and adult immunizations, cardiovascular disease, and HIV infection.

Community-based prevention programs should be based on a comprehensive needs assessment that involves the representation and active participation of all segments of the racial/ethnic minority community. The needs assessment process should not only include an analysis of all relevant data but also include focus groups and key informant interviews. Using this information and guidance from the leaders of the racial/ethnic minority communities, targeted prevention programs that are culturally-sensitive and linguistically appropriate can be developed and implemented.

Health and Medical Care Delivery System

Improving access to the health system and medical care services is a crucial part of our strategy to eliminate health disparities between racial/ethnic minority populations and other populations. There are numerous access barriers for racial/ethnic minorities that inhibit them from receiving quality health care. These include:

- ! The proportion of individuals without health insurance is greater for racial/ethnic minorities,
- ! The lack of available medical and public health services in some parts of the state, especially with higher numbers of minority populations,
- ! The percentage who are unable to see a doctor for needed health care due to the cost of services is greater for racial/ethnic minorities,
- ! Transportation barriers affect racial/ethnic minorities to a greater extent,
- ! Language and cultural differences make communication difficult,
- ! Modern European/American medicine often is not clearly understood by certain racial/ethnic groups, nor do providers acknowledge the benefits of folk/traditional medicine or preventive practices such as Tai Chi, yoga, etc.,
- ! Many times the importance of inclusion of extended family members in visitations or medical decisions is not considered,

- ! Accommodations to the client's work schedule is not always considered, and
- ! Limited or lack of interest in acquiring cross-cultural skills of providers can contribute greatly to unacceptableness of services by racial/ethnic minorities.

These difficulties represent a barrier to primary health care by discouraging people who are members of racial/ethnic minority groups from seeking care.

In addition to these barriers, many people of color believe that race or ethnicity alone is a barrier to receiving health care in their community. Racism does exist in the health care system. One way racism is manifested is in the approach some providers take toward treating persons of color. For example, studies have shown that some physicians treat African Americans with heart disease less aggressively than they do other patients who are not African American. There needs to be an increased awareness of the impact racism has played in limiting good quality health care for racial/ethnic minorities. Racism, if not mentioned and addressed, will continue to be the major barrier that limits access to quality health care for many persons of color. Public health is about social justice, developing leadership, and empowering individuals to address public health problems many of which disproportionately impact racial/ethnic minorities.

Due to the limited availability of culturally appropriate primary care services, many people of color rely on hospital emergency rooms for their health care services. The hospital emergency room has, in effect, become their source of primary health care. In addition, people of color, many of whom are poor and uninsured, are sometimes forced to rely on ambulances to provide transportation to health care facilities. There is an urgent need to improve access for community-based primary care services as well as transportation services for non-emergency care.

HEALTH PROFESSIONS

One of the main strategies for overcoming cultural barriers is to increase the number of racial/ethnic minorities in medicine, dentistry, and all other health professions. Currently, African Americans, Native Americans, and Hispanic Americans are all significantly under represented in the health professions. For example, the percentage of African Americans in medicine is one percent of the total number of physicians in Nebraska but they account for four percent of the state's population. The respective percentage for Hispanic Americans is two percent while they account for slightly more than four percent of the population. In addition to reducing some of the language and cultural barriers, racial/ethnic minority providers are more likely than white physicians to select primary care and to practice in undeserved areas.

In order to attract racial/ethnic minority students into medical school and other health training programs, it is critical to make sure that they take appropriate courses in high school and colleges with tutorial assistance if needed. Increasing minority applicants will also depend on the extent to which admission programs seek out applications from racial/ethnic minority students. It is also important to have adequate

scholarship programs and other forms of financial aid to decrease the financial burden of paying for advanced training.

RECOMMENDATIONS

INFORMATION AND DATA COLLECTION

1. Conduct the racial/ethnic Minority Behavioral Risk Factor Survey in counties that include a high percentage concentration of racial/ethnic minorities. (Proposed counties include Douglas, Lancaster, Scotts Bluff, Thurston, Dawson, Adams, Dakota, Buffalo, Colfax, Cuming, Hall, Knox, Lincoln, and Platte).
2. Desegregate county profile data by specific racial/ethnic minority group for at least those 24 counties which have five percent or more racial/ethnic minorities.
3. Utilize existing standardized set of performance indicators to monitor and track the health of racial/ethnic minorities in Nebraska.
4. Provide ongoing funding and support for the collection, analysis, and interpretation of racial/ethnic minority information and data. Encourage and support the inclusion of race/ethnicity identifiers in existing or new health data collection systems.
5. Link core data sets and employ uniform definitions for relevant terms in order to facilitate information sharing and comparisons among and across racial/ethnic minority populations and non-minority populations.
6. Collect health-related data on migrant and seasonal farmworkers, refugees, and legal immigrants and disseminate necessary materials and services through groups and organizations that work with these groups. Some potential channels for disseminating information include English as a Second Language (ESL) teaching services offered through the literacy councils located across the state and Community Colleges.
7. Develop and evaluate educational, policy, and environmental programs on health-related issues for racial/ethnic minorities.

COMMUNITY-BASED PREVENTION PROGRAMS

1. Develop a Minority Health Initiative or intervention efforts that provide for the funding of racial/ethnic minority-specific programs and/or services (*e.g.*, prevention of tobacco use, diabetes, and infant mortality). Conduct multifaceted health education and health promotion campaigns directed at racial/ethnic minorities that provide awareness of health risks and factors in a culturally-sensitive and linguistically relevant approach.
2. Increase awareness for immunization and other disease and risk factor screening primarily for children. Encourage meat packing companies and other industries that employ a significant number of immigrants, to provide education to its employees regarding immunization and other children's

disease and risk factor screening. All providers throughout the health care system should practice preventive measures and include wellness concepts. Funding for health education and other enabling services such as translation, childcare, and transportation should be increased.

3. Work with the University of Nebraska Medical Center (UNMC), University of Nebraska at Omaha (UNO), University of Nebraska at Lincoln (UNL), Creighton University, and other institutions to fund research projects that identify modifiable risk factors contributing to known disparities in the health status of racial/ethnic minorities. Test innovative approaches to modifying these risk factors among minority populations.
4. Convene focus groups and use other qualitative methods for the purposes of: identifying awareness of issues, assessing needs, determining intervention strategies related to public health promotion, education, and prevention, and establish dialogue. Some proposed areas include:

African American — North Omaha

Urban Indian — Lincoln/Omaha

Reservation Indian — Macy/Santee/Winnebago

Latino/Hispanic — Lexington

Asian American — Grand Island

Asian American/Hispanic —

Crete

5. All initiatives should work as closely as possible with the local health department/ community health systems in the area.

HEALTH AND MEDICAL CARE DELIVERY SYSTEM

1. Policies must be developed at the state and local levels that ensure access to comprehensive health services regardless of the ability to pay or immigration status. Specific programs for increasing enrollment of racial/ethnic minorities must be implemented that include minority-based outreach services. In order to ensure financial and geographic access, the state should:
 - ! Continue full cost-based reimbursement under Medicaid for certified rural health clinics, community health centers, and other health care providers to help preserve safety net providers.
 - ! Explore expanding the *Kids Connection Program* to cover all children at 200 percent of the federal poverty level.
 - ! Explore options for increasing the availability of health insurance coverage. These options should include programs to promote greater self-sufficiency (*e.g.*, job training and education) as well as creating insurance purchasing pools.
 - ! Conduct special studies to evaluate the quality of health care services for racial/ethnic minorities under the Medicaid managed care program.

- ! Continue to use the scholarship and loan repayment programs to encourage racial/ethnic minority health professionals to practice in underserved areas.
- 2. Improve cultural competence by working with UNMC's continuing education program and other entities, to develop a training program on cultural competence for providers who work in the 14 counties in Nebraska with the highest concentration of racial/ethnic minorities.
- 3. Through the Office of Minority Health, organize technical assistance teams to assist local public health departments/community health systems in identifying racial/ethnic minority needs, developing appropriate intervention strategies in the areas of prevention and health promotion, medical care, mental health and substance abuse, and evaluating the effectiveness of these programs.
- 4. Promote collaboration with existing health programs and services and enhance their ability to serve racial/ethnic minorities in an appropriate manner.
- 5. Support the Nebraska Minority Public Health Association (NMPHA) in efforts to develop diverse community coalitions and/or coalitions that adequately represent racial/ethnic minority views on health-related issues.
- 6. Provide technical assistance for staff development to include bilingual and bicultural staff and the capability for translation services.

HEALTH PROFESSIONS

- 1. Commission the Health Professions/Education Committee of the Nebraska Minority Public Health Association to prepare a briefing paper, with specific recommendations, on the academic training and continuing education requirements of health professionals in the State of Nebraska. This paper should address the following issues: cultural competence, working with racial/ethnic minorities, specific racial/ethnic minority health concerns, and opportunities to work in rural and underserved areas.
- 2. Review and evaluate any degree program or other health profession training program for the inclusion of specific core courses relative to aspects of racial/ethnic minority health and training for students in the areas of cross cultural health and cultural competence. Review and evaluate the curriculum content for health professionals to assure cultural competence and cultural relevance. The review and evaluation process would include a focus on the inclusion of cultural competence principles and knowledge within the core curriculum in electives and in continuing education of health care professionals.
- 3. Any degree program or other health profession training program should provide internships, preceptorship programs, and community service training opportunities in ethnically, racially, and culturally diverse settings. UNMC, Creighton University, Nebraska Health Systems Clarkson Family Medicine Program and Lincoln Family Practice Program should continue to provide these

experiences. The College of Nursing at UNMC offers a master's area of specialization called Health Systems Nurse Specialist which includes as part of its training working in communities of color and developing skills and knowledge in the following areas: needs assessment, community outreach, public health planning, public health prevention and promotion, and leadership skills. The health education programs at the University of Nebraska at Omaha (UNO) and the University of Nebraska at Lincoln (UNL) offer undergraduate and graduate courses that prepare health professionals in community health education skills and include culturally sensitive tools and approaches. These educational institutions should work closely with local health departments/ community health systems.

4. Develop, fund, and support programs that encourage racial/ethnic minority high school students to become interested in health professions and to take appropriate courses.
5. Include a cultural competence requirement and specific training in public health as part of certification and licensing of all health care professionals in Nebraska.
6. Use the health profession development programs, such as the loan repayment program, to increase the number racial/ethnic minority health care professionals practicing in health professional shortage areas.
7. Develop mentoring and other career advancement opportunities for minority public health and other health care professionals.
8. Work with the Health Care Professions/Education Committee within the NeMPHA to provide focus and leadership in identifying issues, problems, concerns and solutions related to the education and training of health professionals in Nebraska.

STRATEGY IV – DEVELOPING INNOVATIVE HEALTH PROMOTION AND DISEASE/RISK FACTOR PREVENTION PROGRAMS IN NON-TRADITIONAL SETTINGS (SCHOOLS, WORKSITES, CHURCHES, AND SENIOR CENTERS) AND MAKING HEALTH PROMOTION AND PREVENTION AN INTEGRAL PART OF THE STATE HEALTH AND HUMAN SERVICES DELIVERY SYSTEM

Over the years, prevention has clearly been shown to have a demonstrative impact on human health, as well as extend the longevity and enhance the quality of life. Prevention efforts have also been very effective in reducing the number of hospital admissions, days lost from work or school, and consumption of human and fiscal resources. Since there are so many targets for prevention, these efforts often go unnoticed because success results in unseen and covert consequences.

Prevention includes activities that reduce the incidence of health problems or disease in the community, as well as risk factors, both personal and environmental, for health problems or diseases. Health promotion is defined as any combination of health education and related organizational, and economic interventions designed to facilitate behavioral, social, and environmental changes which prevent or delay the occurrence of, or minimize the impact of, disease or disability while promoting the independence and well-being of individuals. Traditionally, prevention is recognized as occurring at three levels: primary, secondary, and tertiary.

Primary prevention focuses on reinforcing appropriate behaviors and creating an environment that will deter the development of a problem (*e.g.*, tobacco use prevention, physical activity promotion, healthy nutrition, stress management). Primary prevention precedes the earliest signs of a problem and strengthens protective factors, reinforces appropriate behaviors, often involves education and public information in some skill development, and changes in the physical, social, community, or family environment to reduce the likelihood that the problem can or will occur.

Secondary prevention focuses on early detection and early treatment of diseases. Cancer screening programs are good examples of secondary prevention. Early detection and treatment may help to prevent the full-blown problem and possible complications and reduce the course and the cost of a problem. However, secondary prevention means the condition or problem has occurred, has been detected, and can be limited by effective intervention services, but the problem was not prevented. Most efforts have focused on early detection and treatment rather than on primary prevention.

Tertiary prevention refers to the delivery of treatment aimed at reducing or preventing complications and rehabilitation services to persons who have been diagnosed with a disease or health problem (*e.g.*, diabetes self monitoring and prevention of complications, asthma management). These services improve a person's quality of life, given the realities of their current or permanent condition.²³ Preventing relapse among persons recovering from addictions is another important example of tertiary prevention.

As previously discussed, many health problems relate to more than one behavioral risk factor as well as various social and environmental factors. According to the draft of the *Healthy People 2010 Objectives*,

the most effective community health promotion programs are those that implement a comprehensive intervention plan that uses multiple intervention strategies (educational, policy, and environmental) within a variety of settings.

Educational strategies focus on awareness, communication, skill building, changing attitudes and norms, and changing behaviors). Policy strategies are the laws, regulations, formal and informal rules, and understandings that are adopted on a collective basis to guide individual and collective behavior. These policies are designed to encourage healthful actions such as flextime at worksites that enable employees to engage in physical activity. They also include policies to discourage or limit unhealthy actions (e.g., restrictions on the sale of alcohol).

Finally, environmental strategies are directed toward altering or controlling the legal, social, economic, and physical environment. These strategies can include increasing the number of street lights to discourage crime and encourage physical activity; increasing the accessibility of low-fat foods in grocery stores to encouraging a low-fat diet; or the removal of cigarette vending machines from public buildings to discourage smoking.

These educational, policy, and environmental strategies are most effective when they are applied in as many settings as appropriate. In order to reach more people in the community, many health promotion and prevention activities occur in a variety of settings such as schools, worksites, churches, and senior centers. In these types of settings, programs can become more clearly targeted with outcome-based objectives, yet they are often able to reach large numbers of people.²⁴

PREVENTION SUBCOMMITTEE

A prevention subcommittee was formed to develop and expand population-based prevention programs in schools, worksites, churches, and senior settings. In each of these areas, a work team was organized to develop specific recommendations (see Appendix A for a list of members in each team).

There are two major challenges that cut across all settings. The first is the challenge posed by racial and ethnic minorities in the area of primary prevention as a result of barriers from language and cultural practices. Churches and places of worship provide an excellent avenue for reaching these disparate populations in a manner that is both linguistically and culturally appropriate. Schools, worksites, and senior centers also provide viable options for reaching racial/ethnic minorities. This is particularly relevant, considering the major disparities that exist in general health status of racial/ethnic minorities compared to the general population.

A second major challenge in planning for programs in non-traditional settings is the lack of information about what programs and activities are already occurring. In some areas, an accurate inventory of services already exists, but in many areas this information is quite limited. As a result, there is a need to compile a list of health promotion and disease prevention programs and activities that are available in

more non-traditional settings such as schools, worksites, senior centers, and the faith community. It would also be desirable to know how many and what type of staff are available to provide services.

Finally, it is necessary to compile a list of culturally sensitive and linguistically appropriate public health resources, translators, and interpreters available to schools for public health efforts. The Health and Human Services System should be responsible for developing the list and making it available electronically.

SCHOOL TEAM

The school is one of the most important settings for reaching children and youth and ultimately the entire population. School-based activities can range from pre-school to the university level. With the exception of the family, schools are more likely to have more influence on the lives of youth than any other social institution. Schools provide an ideal setting through which friendship networks are developed, socialization occurs, and norms that govern behavior are developed and reinforced.

Schools are an important focal point for prevention programs because one-third of our nation's population is part of the educational system. When health promotion and disease prevention activities are instituted at the school level, they are more easily transmitted to parents and school community.²⁵

School-site health promotion and disease/risk factor prevention programs benefit staff, students, and communities because teaching staff who are interested in their own health tend to take an increased interest in the health of students and serve as health role models. The school environment improves when everyone shares a concern for physical, mental, and social health. In turn, a safe, healthy school environment supports health promotion and the implementation of policies that protect health (*e.g.*, smoke-free schools).

Addressing the health needs of students and families can result in higher academic achievement and the number of students who are capable of addressing future societal challenges. Programs such as substance use prevention and pregnancy prevention contribute to keeping young people in school longer and increase the percentage of students who graduate.

Leaders in government, education, and business should make a commitment to ensure that all children receive a world class education, and this education *must* include the opportunity to become truly health literate. Where effective counseling, psychological, and social services are in place, children and youth, their families, staff, and society benefit from better student functioning, increased attendance, reduced health and welfare costs, lower crime and violence, unemployment, and use of emergency services. Establishing integrated approaches to addressing barriers to student learning while enhancing healthy development can increase such benefits. School health services can respond to the identified health promotion and disease/risk factor prevention needs of students in an organized approach and build on ties with community-based services and integrated partnerships with providers.

The American Cancer Society Nebraska School Health Award works to recognize those schools that are achieving excellence in coordinated school health programs. The *Health for Success* program creates guidelines for schools that encourage a health education curriculum and an overall healthy school environment.

In order to provide effective health promotion and disease prevention programs, it is important to have qualified school nurses. School nurses are the essential link between the educational and health systems and are capable of blending the provision of physical and mental health services, health services, and care with health education, health promotion, and disease/risk factor prevention.

With appropriate resources, schools can address high-risk behaviors. For example, youth are over-represented in fatal motor vehicle crashes, both alcohol and non-alcohol related, in the licensed driver population. Nationally, young people aged 15 to 20 account for about 20 percent of all passenger fatalities.

Schools are an appropriate setting to address these risk factors. However, it is recognized that health promotion and disease prevention programs in schools complement other programs and policies. For example, school health education programs aimed at reducing alcohol-related motor vehicle crashes may be most effective when combined with graduated licensing laws and strict enforcement of the minimum drinking age.

There are many other risk factors that involve youth. These risk factors involve tobacco use, alcohol and drug abuse, physical inactivity, unhealthy diet and disordered eating, anger and violence, risky sexual behaviors, and teen pregnancy.

WORKSITE TEAM

Health promotion programs at the worksite offer enormous opportunities to improve the health of all employees as well as keeping our workforce strong and productive. In the worksite setting, it is possible to implement educational programs, policy actions, and environmental strategies that improve health and are beneficial to managers, employees, and the community. The core of worksite health promotion involves increasing awareness, promoting individual lifestyle and health-related behavior changes, creating supportive work environments, and implementing health-related policies. There is considerable evidence to support the notion that worksite health promotion reduces health care costs, improves worker morale, decreases absenteeism, and improves behaviors that are associated with increased worker productivity.

Comprehensive worksite health promotion programs should include the following elements:

- ! Health education that focuses on skill development and lifestyle behavior changes as well as information dissemination and awareness building. These programs should be tailored to employee interests and needs and take into consideration appropriate language and cultural practices.

- ! Supportive social and physical work environments that establish norms for healthy behaviors and policies that promote health and reduce the risk of diseases such as worksite smoking policies, seat belt policies, flextime for physical activity, provision of healthy foods at company-sponsored events, meetings, vending machines, and cafeterias.
- ! Integration of ongoing worksite programs into the organization's administrative structure.
- ! Development of health-related programs such as employee assistance programs (EAPs) with effective referral linkages.
- ! Screening programs that are linked to medical care service delivery to ensure follow-up and appropriate treatment.²⁶

Several businesses in Lincoln and Omaha have already organized to become part of city-wide corporate wellness coalitions with a national affiliation. Businesses in Kearney are in the process of organizing a corporate wellness coalition and many other businesses in Nebraska also provide worksite health promotion programs. Thus, considerable progress has already been made in some parts of the state. However, programs for companies with fewer than 50 employees have lagged considerably and more attention needs to be given to designing and implementing programs to serve the needs of small employers. This is particularly important given that over 80 percent of businesses in Nebraska have fewer than 50 employees.

SENIOR SETTINGS TEAM

The older population in many parts of Nebraska is among the fastest growing segment of the population. Older people have higher incidences of most chronic conditions and certain types of accidental injuries. Unfortunately, the consequences or effects of these conditions and injuries typically are more severe for elders.

Many chronic conditions and injuries can be prevented, delayed, or at least the impact due to complications reduced. If the onset of risk or progression of existing conditions can be delayed for five years, the American Federation for Aging and the Alliance for Aging Research have estimated that the treatment costs for cardiovascular diseases could be reduced by \$69 billion. The net savings from prevention activities for the treatment of osteoporosis and hip fractures are estimated at \$10 billion and \$5 billion respectively. In addition to the cost savings, the quality of life for many older people would be dramatically improved.²⁷

Most older people in Nebraska have a regular primary care physician and receive many clinical preventive services (*e.g.*, screening for colon, breast, and cervical cancer) in the physician's office. However, many health promotion and disease prevention programs and activities are not provided in physician offices. As a result, many of these services could be offered in more non-traditional settings such as senior centers and other areas where elders tend to congregate.

Senior centers have been established in many communities and provide a range of services that may include health promotion. Several types of housing arrangements designed specifically for older adults, such as congregate housing and retirement villages, may offer some mix of health care, recreational programs, and other types of activities and services.

These non-traditional settings have the potential to offer a wide variety of health promotion and disease prevention programs and activities. One of the more successful programs is *Lifetime Health*, which is offered by the senior center in Lincoln. *Lifetime Health* has been providing health promotion services to adults 55 and over since 1984. Core program components include health and fitness assessments, screenings, health education classes, and fitness programs. The health education and promotion programs include various topics related to mental health, illness and injury prevention, and nutrition.

Recently, a network consisting of a local health department, a community action agency, an area agency on aging, and several other entities have applied for a rural health outreach grant. If the network is awarded this grant, the *Lifetime Health* model can be extended in seven rural counties.

FAITH COMMUNITY TEAM

Historically, there has been a close connection between the health of individuals and populations and the faith community. Considerable research has documented the associations between religious involvement and health attitudes, beliefs, and behaviors. As a result of these linkages, public health and health education have worked closely with faith-based communities to provide health screenings, health promotion and disease prevention (*e.g.*, diabetes, hypertension, and maternal and child health), and risk reduction programs.

The placement of community-wide health programs within churches offers several advantages, particularly given a similar ethic of service to others that is the philosophical foundation of both faith institutions and public health. Faith organizations often play a pivotal role in their communities with respect to economic, educational, civic, and social welfare concerns. As a result, they possess community legitimacy, as well as the organizational structures and roles that facilitate the incorporation of relevant health programs and policies within their settings. The church setting provides a non-threatening, safe environment for individuals and families to receive prevention interventions and is a viable option to reach many individuals with prevention initiatives.²⁸

Public health staff can involve the leaders of religious institutions in the needs assessment process. They can also be very helpful in developing intervention strategies and targeting resources because of their knowledge about individual members.

Religious organizations can be especially valuable partners for reaching minority groups because they can help overcome the cultural barriers to health care that exist in minority communities. Because religious organizations can provide information and services in a familiar non-threatening environment, they can often succeed where outside professionals cannot. Many health education services, screening programs, and related activities have already been conducted in African-American churches, but there is

great potential to expand these programs and activities to other racial/ethnic religious organizations as well.

INTEGRATING PREVENTION INTO THE STATE HEALTH AND HUMAN SERVICES DELIVERY SYSTEM

The state's health and human services delivery system, along with many local service providers, serves as a safety net provider for many individuals. Many individuals have low incomes, limited assets, and often have more serious illnesses or disabilities. Because of their health status, the cost of treatment and support services is very high.

Given the relatively large number of people in Nebraska who use the state's health and human services system, there are greater opportunities to incorporate preventive services into the delivery of various medical and social services. A greater emphasis on primary, secondary, and tertiary prevention activities will result in substantial accumulated benefits over time through reduced

service demands, earlier and more appropriate service utilization, and less likelihood of someone re-entering the service system. If prevention resources are used effectively, the net result is reduced illness and premature death as well as an improved quality of life for clients. It is also likely that there will be significant long-term cost savings.

Teen pregnancy provides a good example of the potential impact of prevention on costs and quality of life. A recent report by *Health 2000, Inc.* states that "Preventing teen pregnancies also prevents a whole range of poor outcomes for both mother and child. The consequences are not small –think about it; educational and employment opportunities for the mother vs. poverty for both mother and child. Teen pregnancy increases the risk of child abuse, malnutrition, and deters a child's readiness and ability to learn."

In order to realize these benefits and cost savings, prevention must receive a greater focus at every screening, diagnostic, and treatment or service-related contact. For example, no adolescent should enter the health and human services system without some attempt to reinforce appropriate behaviors or deter risky behaviors. From a systems perspective, providing care for one problem allows discussion and education about other major adolescent risk behaviors: failure to use safety belts, alcohol, tobacco and other drug use, sexual behavior, and nutrition. Direct questions on each of these behaviors would facilitate reinforcement low risk behavior or direct advice and referral for more information or skill building to reduce risky behaviors.²⁹

RECOMMENDATIONS

SCHOOLS

The HHS System, in collaboration with other health-related agencies and interested individuals, should:

1. Educate the public and community leaders about the need for sustained prevention activities/campaigns in schools with regard to tobacco use, substance abuse, physical activity, diet, anger control, conflict resolution, violence prevention, and teen pregnancy.
2. Support coordinated school health services that promote the well being of students, faculty, and staff.
3. Develop a coordinated health promotion and education program that reduces motor vehicle-related injuries and fatalities in Nebraska by at least five percent. This program should focus on promoting seat belt and helmet use as well as reducing alcohol and drug use.
4. Support the implementation of Health Education Frameworks (HEF) endorsed by the Department of Education. Although HEFs are not mandated nor considered a model K-12 program, they are approved standards for teaching health education in schools.
5. Work with the Department of Education to establish a health and physical education liaison. The liaison would work closely with the HHS System and provide technical assistance to schools.
6. Explore funding sources to finance health promotion and education programs in schools.
7. Educate the public and school boards about the importance of providing more preventive health programming in schools, an adequate number of school health nurses, and increasing access to regular preventive health care.
8. Ensure that all school health programs address racial/ethnic minority youth and develop school health programs that focus on high-risk behavior among racial/ethnic minority youth in counties with at least five percent racial/ethnic minority populations.
9. Develop, implement, and evaluate health promotion and disease/risk factor reduction programs for children in K-12 and colleges for physical activity promotion, healthy nutrition, stress management, healthy sexual practices and substance abuse reduction.
10. Provide training workshops on indoor air quality using programs such as the Environmental Protection Agency's *Tools for Schools* and American Lung Association's *Open Airways, Asthma Busters*, and other locally-developed programs.

11. Work in close collaboration with other community resources to provide coordinated school health services.

WORKSITES

The HHS System, in collaboration with the Wellness Council of the Midlands (WELCOM), the Lincoln Worksite Wellness Council (Workwell), the Wellness Councils of America (WELCOA), private businesses, and other health-related agencies, should:

1. Assess the degree of existing worksite health promotion activities currently provided at worksites in selected areas of Nebraska.
2. Develop a regional worksite health promotion network and refine and replicate efforts to build it into a successful statewide worksite health promotion network.
3. Create a network around health-related issues of worksites that have at least 10 percent racial/ethnic minority employees.
4. Provide model worksite health promotion programs and policies for worksites across the state, including those with less than 50 employees. Ensure that these worksite health promotion programs reach racial/ethnic minorities and that these programs are both linguistically and culturally appropriate.
5. Explore new and innovative ways to reach rural farming/ranching families via farm implement dealers, sales barns, and other gatekeepers who interact with this population.
6. Actively participate in the *North American Agromedicine Consortium* to promote the health and safety of farm families, agricultural workers, and consumers of agricultural products through research, education, and outreach.
7. Conduct surveillance activities in worksites to better identify the health needs of workers and to target resources more effectively through appropriate intervention strategies.

SENIOR SETTINGS

The HHS System, in collaboration with other health-related agencies and interested individuals, should:

1. Create a web-based resource database of health promotion and disease prevention programs and activities that are available across the state for older adults.
2. Develop and secure funding for implementing a statewide plan to ensure that comprehensive health promotion and disease prevention programs and activities are available for older adults, including

racial/ethnic minorities. These programs should be linked to the medical care system to ensure follow-up treatment and continuity of care.

3. Pursue funding opportunities at the federal, state, and local level to promote older adult wellness.
4. Train public health professionals, health providers, and para-professionals on best practices for reaching older adult populations (*e.g.*, Lifetime Health Programs).
5. Support and/or draft legislation that improves health for older adults and emphasizes preventive behaviors.
6. Initiate efforts to reach older adults in the racial/ethnic minority communities with appropriate public health messages and activities by working with cultural centers and health care providers that reach large numbers of racial/ethnic minorities.
7. Ensure medical interpreters and culturally-sensitive and linguistically appropriate health education materials are available for older adults in the racial/ethnic minority communities, where necessary.

FAITH COMMUNITY

The HHS System, in collaboration with churches and other health-related organizations, should:

1. Continue to develop educational materials (*e.g.*, posters, brochures, health fair materials) and programs that can be distributed on a quarterly basis to the existing health ministry networks.
2. Conduct a baseline survey to assess the types of programs offered in faith communities and the needs and interests of faith communities.
3. Maintain and update the health ministry database, which includes over 300 parish nurses and health ministry contacts. Publicize the availability of this resource so it can be used by the HHS System programs and other voluntary health agencies who are interested in working with the faith community.
4. Assess the feasibility of utilizing the HHS Systems website to promote faith-based prevention programs and research. The website could be used by existing networks and might also encourage additional churches to implement health messages into their ministry.
5. Identify or create a lead organization that could assume the role of coordinator of health ministry efforts in the state.
6. Secure funding from grants, organizations, and HHS System programs to support a statewide organizational structure and appropriate staff.

7. Offer education and training workshops to health ministry networks as a way to share information and stimulate growth.
8. Integrate racial/ethnic minority faith communities into health ministry efforts and ensure that materials developed are culturally sensitive and linguistically appropriate for racial/ethnic minority faith communities within the health ministry network.
9. Train parish nurses within racial/ethnic minority faith communities and the health ministry network to ensure that these communities have access to a parish nurse.

INTEGRATING PREVENTION INTO THE STATE HEALTH AND HUMAN SERVICES DELIVERY SYSTEM

1. The Public Health Team in the HHS System should develop a strategy to ensure that coordinated prevention strategies are an integral part of data gathering and data use, planning, and service delivery across all departments and programs in the HHS System.
2. The HHS System should:
 - ! Promote public awareness about successes of and lessons learned from its prevention programs.
 - ! Continue to collaborate with local service providers and agencies to integrate prevention services at all levels.
 - ! Create a web-based resource database of health promotion and disease prevention programs and activities that are available across the state.
 - ! Ensure that intergenerational health promotion and disease prevention programs that cross boundaries are integrated across the state.

STRATEGY V - DEVELOPING EFFECTIVE MONITORING AND INTERVENTION STRATEGIES TO PROTECT THE PUBLIC FROM ENVIRONMENTAL HEALTH HAZARDS AND SAFEGUARD THE NATURAL ENVIRONMENT

There is a fundamental and traditional relationship between public health and environmental protection. Environmental health focuses on the impact of the environment on human health. The protection of human health is the highest priority with the protection of the environment as one of the outcomes. Emphasis is placed on the assessment of human health risks from environmental exposures, minimizing these risks by making effective risk management decisions, and communicating these risks to the public and other entities to promote permanent change in behavior and production. In addition, promoting and maintaining environmental assets is also of vital importance for society.

An elemental need for promoting environmental health is continual education of individuals at the state and community level regarding the concept of environmental health. Although there is a fundamental relationship between public health and environmental protection, it is often difficult to think of the two terms in a joint concept. Many state and community individuals work daily toward improving the environmental health of the state or their communities, many of whom do not associate their activities with environmental health.

At the state level, most of the environmental regulatory authority is outside of the Nebraska Health and Human Services System (HHS System) in agencies such as the Nebraska Department of Environmental Quality (NDEQ – ambient air, ground water, surface water, hazardous waste, etc.), the Nebraska Department of Agriculture (pesticide registration), the Natural Resource Commission (watershed and flood control), the Natural Water Resources (registration of wells), and the Natural Resources Districts (soil testing, abandoned well closures).

The Nebraska Department of Health and Human Services System Regulation and Licensure contains the Safe Drinking Water Act Program and programs such as asbestos control, radon, childhood and adult lead prevention, indoor air, sanitation, risk assessment, entomology, and toxicology. Some of these programs are non-regulatory. At the local level, environmental health issues are often the priority function of the local health departments, and these usually have a strong regulatory emphasis. Besides governmental agencies, there are several non-governmental organizations working on environmental issues. Close collaboration between all the environmental health organizations, agencies, and individuals is of utmost importance to achieve a healthy environment.

Nebraskans are in daily contact with factors in our environment, indoors and outdoors, in air, food, water, and soil. All of these have the potential to affect our health. The scope and degree of human health effects resulting from environmental exposures have not been fully elucidated. In addition to the microbes and naturally occurring toxins that contaminate our food and water supplies, there are over four million known manufactured chemical compounds, with some 5,000 to 8,000 of these in common use and more being introduced each year. Less than ten percent of these chemicals have been subjected

to complete toxicological analysis. Even less is known about the hazards of mixtures, which are typically encountered in environmental settings. Despite improvements (phase-out of leaded gasoline in the U.S. and health protective environmental regulations), environmental health risks are still present and continue to pose a challenge for public health professionals.

Environmental health issues address concerns about specific environmental exposures and specific substances (*e.g.*, lead and dioxin). These, in turn, have direct implications for public health interventions. In some cases, such as lead poisoning, the scientific foundation for intervention strategies is well developed. For others, the science base for determining causality may include only clues of adverse health effects under certain conditions. This may not provide sufficient conclusive evidence upon which to base a regulatory standard, but enough to formulate educational strategies for risk reduction. Even for those risks that are better understood, research is still needed to prevent exposure through improved engineering controls, abatement techniques, and other components of an efficacious public health effort aimed at eliminating adverse health effects.

Special attention should be given to children, since they face significant and unique threats from a range of environmental hazards. Children are at particularly high risk from environmental hazards, because their biological systems are still developing; they eat proportionately more food, drink more fluids, breathe more air, and play outside more; and they are less able to protect themselves from environmental risks.

Of growing concern to environmental professionals is the increased incidence of asthma, especially in children, neurological disorders, immunological ailments, and endocrine disorders, infertility, adverse reproductive outcomes, and developmental disorders in the offspring.

Over the last decade, there has been increased concern about the impact of environmental pollution on low income and minority communities. These communities may bear disproportionately high risks to human health and the environment from pollution. Compounding the problem, these communities often lack the legal means necessary to effectively organize political activities on their own behalf. These concerns have resulted in a movement to assure environmental justice for all populations.

Since agriculture is Nebraska's primary source of wealth and its dominant industry, farmers, their family members, and their employees, including migrant and seasonal workers, are important constituents. However, this constituency is at higher risk for work-related fatal injuries, pesticide poisonings, and specific farm-related diseases. There is a need to develop specific interventions for this group.

Another challenge in environmental health relates to the way most chemicals are tested as compared to the way most people are exposed to them. Most information is gathered on individual chemicals acting alone in one medium, although most individuals are exposed to complex mixtures of substances. Little is known about the health effects of those mixtures of chemicals. Even less is known about the interaction of chemical exposures and human susceptibility. These can be determined by interdisciplinary research efforts in genetics, behavior and lifestyle studies, sociological studies of race/ethnicity, socioeconomic level, and nutritional and health status. Scientists and governmental

agencies have yet to establish how to integrate these factors to determine the cumulative risk to an individual or a community from environmental stressors.

To assure environmental health protection for all Nebraskans, it is necessary to improve the basic infrastructure at both the state and local level. It is also important for each community to identify periodically essential activities or issues to focus on. This is particularly important in Nebraska because rural agricultural communities have different environmental health concerns than urban communities, and urban areas also have environmental health considerations unique to their locales.

The term "community" is used throughout this strategy and is intended to encompass the broadest sense of the word. "Community" includes individuals, leaders, community-based organizations and agencies, environmental groups, health care providers, and local public health departments/community health systems. All of these entities and individuals are essential to building and developing healthy environments.

AIR QUALITY

Clean air is a critical issue in environmental health. Increased mortality has been linked with fine particulate air pollution. Increases in the concentration of respirable particles in ambient air have been associated with an increase in deaths from respiratory conditions. Air pollution has also been associated with an increase in the rising prevalence rates and mortality rates from asthma, particularly in children and inner city minority populations. The direct and indirect costs associated with asthma in the nation were estimated at over \$6 billion in 1990.

Nebraskans have expressed concerns about several air quality risks, including continuous exposure to hydrogen sulfide and other sulfide compounds, point sources of pollution and their potential impact on public health, and odors in the ambient air adjacent to large animal confinement facilities.

The quality of the indoor air environment has emerged as an important public health concern. Office buildings and private residences that affect people's health have resulted in "Sick Building Syndrome". Due to the energy crisis in the late 1970's, buildings have become more energy efficient, which can result in tighter buildings with less air circulation and less fresh air ventilation. This can, in turn, result in build-up of chemicals, biologicals, and other contaminants, including dust and radon.

WATER QUALITY

Some of the nation's greatest environmental and public health gains have come from improvements in the safety of the water supply. The availability of clean, safe, and affordable drinking water is one of the most basic human requirements.

Water-related issues, which impact local communities, include run-off by man-made contaminants such as pesticides and fertilizers, appropriate disinfection to prevent microbial contamination, and contamination of drinking water sources by natural contaminants. Several environmental regulations, such as the Nebraska Safe Drinking Water Act, are intended to assure the safe delivery of water for persons on public water systems. For private wells, proper construction is mandated, but regular monitoring is not required and, therefore, safe drinking water can not be assured. Groundwater is a recognized precious resource, critical to public health and the future of Nebraska's economy and this again underscores the need for strengthening the local public health infrastructure.

The quality of surface water primarily from lakes and rivers can also affect human health. Run-off from agricultural fields can contaminate surface water bodies, which can result in recreational risks and contamination of fish used for human consumption. The potential hazards from mercury accumulation in fish have been well documented. Run-off into rivers can lead to downstream contamination of public water supplies relying on river-fed aquifers.

SOIL QUALITY

Soil contamination presents a potential pathway of exposure that can adversely affect public health. Soil contamination can result from industrial contamination through air deposition, chemical spills, and other incidences like lead contamination from leaded gasoline and chipping house paint. New residential development on land formerly used for agricultural or industrial uses often poses a health risk. Children playing in contaminated soil or crops grown in contaminated soil can affect children's health and the food supply.

FOOD QUALITY

The food supply in the United States is one of the safest in the world. However, improper handling of foods (not keeping food hot or cold, cross-contamination, etc.) in retail settings and restaurants still causes many food-borne illnesses. Food handlers can contribute to the risk of food-borne illnesses through poor hygiene and unsanitary practices. Nebraska plays a key role in the food production industry, and, therefore, the involvement of these industries could assist in assuring food safety not only for Nebraskans but for all consumers across the country and the world.

Food can also contain additives, including those introduced into the food from the environment in which the food is produced as well as those resulting from some production or processing treatment. The continued enforcement of sanitary practices and food regulation should prevent the inclusion of harmful additives or, at least, keep these below hazardous levels. Pesticides, including herbicides, fungicides, and insecticides, are regulated to ensure that levels remaining in food pose a minimal health risk to consumers.

RECOMMENDATIONS

GENERAL

1. Communities should conduct an environmental assessment to learn what their primary environmental challenges are, and to understand the primary environmental health concerns of citizens in the community. Funding for small community assessments may be provided through the Nebraska Mandates Management Initiative or other alternative resources.
2. Some of the environmental health programs should be coordinated and managed at the local level by local public health departments/community health systems.
3. The HHS System in collaboration with the Nebraska Department of Environmental Quality (NDEQ) should establish a toll-free hotline for communities and individuals with health concerns related to environmental exposures.
4. The HHS System should develop educational workshops with other health partners (*e.g.*, local public health departments/community health systems, University of Nebraska Cooperative Extension, and industries such as ConAgra) to inform and educate communities, health care professionals, and other health partners about the health hazards in their community, including air contaminants, water pollution, and other environmental hazards. The subject area of these workshops would be chosen based on calls to the hotline or based on monitoring data from the Nebraska Department of Environmental Quality and HHS System.
5. The HHS System together with the universities in the state and other partners should strongly consider the development of an agrimedecine program in Nebraska.
6. Communities should set environmental goals that are measurable, based on data provided by local, state and federal agencies (*i.e.*, local public health departments/community health systems, HHS System, NDEQ, US EPA, etc.).
7. The HHS System must develop technical expertise on new emerging issues and communicate adverse risks to the public, including how these risks may affect individual communities and potential prevention and intervention measures, and make it available at the local level. The use of the Internet, Geographic Information Systems (GIS), and other contemporary technologies must be incorporated.
8. Because land-use planning should be a priority for every community, the HHS System, in cooperation with the League of Nebraska Municipalities and the Nebraska Association of County Officials, should work with the communities to assess the benefit of this action.

9. In cooperation with other environmental agencies, the HHS System should develop a media campaign focusing on caring for the environment and valuing the resources of the state. Funding for such a project could be achieved by partnering with industries and businesses in the state.
10. The HHS System must develop a comprehensive plan, in collaboration with local public health departments/community health systems, to address children's environmental health issues through better surveillance, closer working relationships with pediatric providers, ongoing education and prevention strategies.
11. The NDEQ, Department of Agriculture, and Natural Resource Commission should delegate appropriate program responsibilities to the local public health departments/ community health systems.
12. State agencies, in collaboration with local health departments, will continue to promote environmental health to affect a change from conceptual philosophical thought to a practical daily reality.
13. The HHS System must coordinate with local and state entities to respond to acute toxic episodes.
14. The HHS System should collaborate with the University of Nebraska Cooperative Extension to provide increased awareness in occupational health.

AIR QUALITY

1. Communities should be familiar with the emission inventory data on air pollution sources, as provided by the Nebraska Department of Environmental Quality and the U.S. EPA.
2. Local public health departments/community health systems must be trained in air quality areas.
3. All schools in Nebraska should be encouraged to endorse and use the *Tools for Schools Kit*, which is intended to prevent indoor air quality incidents by managing the indoor air environment more effectively. HHS System, in cooperation with US EPA and the local public health departments/ community health systems, will provide technical assistance and potentially some seed money to the schools to implement the program. HHS System together with local health departments will increase awareness of the *Building Healthy Home* information developed by US EPA especially for large building owners. Collaboration with the Nebraska Department of Education must be strengthened.

WATER QUALITY

1. Nebraska state agencies in conjunction with local public health departments/community health systems should collaborate with the Nebraska Groundwater Foundation to encourage communities to join the Groundwater Guardian Program in every part of the state. This program encourages

communities to begin groundwater awareness and protection activities; it supports the community in their efforts, and recognizes their achievements.

2. Areas with high nitrates or other contaminants must be targeted to develop and adopt Wellhead Protection Areas, with the assistance of Natural Resource Districts, Resource Conservation and Development Programs, Nebraska Rural Water Association, Nebraska Department of Environmental Quality, local public health departments/community health systems, and others.
3. The HHS System Drinking Water Program will make community-specific drinking water monitoring data available on the HHS System website by the end of 2000.
4. Private well testing must be encouraged and the HHS System will identify potential funding sources.
5. Communities with fish consumption advisories must be targeted to: 1) disseminate the advisory information in several languages, depending on the community, to inform all citizens about the health hazards from eating contaminated fish; and 2) find a teacher in the community who is willing to teach the importance of keeping lakes and rivers clean. In addition, citizens in the communities should be encouraged to participate in projects to clean up the banks of a river or lake in their area. Buffer zones along rivers must be promoted.

SOIL QUALITY

1. All communities in Nebraska should have access to a household hazardous waste collection system at least once a year and ideally within a 60-mile radius. Collaboration with the University of Nebraska Cooperative Extension and local public health departments/community health systems must assist in achieving this goal. The HHS System and NDEQ, in collaboration with local health departments, should develop a community guide for hazardous waste collection drives, especially inorganic mercury, and provide technical assistance.
2. Soil testing and implementation of Best Management Practices in conjunction with the Natural Resource Districts and the University of Nebraska Cooperative Extension should be encouraged.
3. Waste oil collections across the state should be promoted. Dissemination of Waste Oil Collection Program packets from NDEQ must be done systematically.
4. Utilization of the services from the local public health departments/community health systems should be encouraged.
5. In collaboration with the Poison Control Center, the HHS System should provide information and education to health professionals with regard to the recognition of symptoms of acute environmental poisons exposure.

FOOD QUALITY

1. Information about safe food handling practices must be reinforced through public service announcements (PSAs) that are targeted toward high-risk groups. These PSAs must be culturally-sensitive and linguistically appropriate wherever needed.
2. The media should highlight restaurants with excellent inspection records, because these actions tend to promote “environment-friendly” practices.
3. Collaboration with the local public health departments/community health systems must be encouraged and strengthened.
4. An advisory group should be formed with the food production industry in the state to develop policies for food production safety.

STRATEGY VI – BUILDING AN INTEGRATED HEALTH AND MEDICAL SYSTEM THAT MAINTAINS AN ADEQUATE SAFETY NET AND IMPROVES ACCESS TO HIGH-QUALITY SERVICES FOR ALL PEOPLE IN NEBRASKA

Many people in both rural and urban areas of Nebraska have experienced difficulty in gaining access to timely and effective health and medical services. As previously discussed, the number of uninsured in Nebraska has more than doubled since 1985. It is estimated that about one-fourth of the uninsured are children. Many other people in Nebraska are considered underinsured because their insurance policies include high deductible and coinsurance payments. In many cases, underinsured families fail to receive appropriate preventive care and often delay seeing a primary care practitioner until a medical problem becomes more serious. Racial and ethnic minorities are disproportionately represented among the uninsured. For many individuals, language and other cultural barriers (see Strategy 3 for a more complete discussion of these issues) magnify the lack of health insurance coverage.

Many rural areas face unique challenges that include a shortage of health professionals, financially distressed hospitals, longer travel distances, and the lack of public transportation systems. Rural areas also have a relatively large elderly population and high poverty rates in some areas. It should be emphasized that some of these problems also occur in some parts of north and south Omaha.

An adequate supply of primary care physicians does not exist in many rural areas. Currently, 38 counties are designated as health professional shortage areas (HPSAs) by the federal government. Although the number of HPSAs has declined from 50 in 1997, it still represents almost half of all of the non-metropolitan counties without a regional hospital. In addition to primary care physicians, many rural areas have a shortage of other health care providers, including mental health professionals, nurses, physical therapists, occupational therapists, radiological technologists, and nurse's aides. Most rural hospitals, clinics, and nursing homes are forced to pay a nationally competitive wage rate in order to attract these health professionals to their communities. However, the reimbursement rates allowed by Medicare and other third-party payers are based on local costs and, therefore, are not sufficient to pay these competitive rates.

Many rural hospitals are facing serious financial problems. Within the last year, three rural hospitals have closed, and the Nebraska Association of Hospitals and Health Systems (NAHHS) estimates that at least 15 rural hospitals cannot recover their costs of operation due to insufficient revenue. This problem is likely to worsen in the near future because the cutbacks in both inpatient and outpatient reimbursement mandated under the 1997 Balanced Budget Act will be more severe. There is a dire need to address this issue.

Transportation is another major issue for many rural residents. Most areas lack public transportation services for non-emergency care. In addition, emergency medical services (EMS) are becoming less reliable in many areas because some communities have a shortage of appropriately trained volunteers that are able to respond when services are needed. The shortage is caused by an inability to leave a

job at a moment's notice, as well as burnout, retirement, relocation to larger communities, and the personal costs of training and education. Consequently, it is becoming increasingly more difficult to sustain the volunteer EMS system. One option is to replace volunteers with paid professionals, but this would result in higher costs, especially given the low volume of services in many areas.

In the past, the values of self-reliance, independence, and community identity have been powerful forces in rural communities. As a result, communities have typically competed with one another to attract health care providers and it has been difficult to get rural communities to work together to coordinate their resources and build a larger population base. A larger population base would facilitate the recruitment and retention of health care providers and improve the integration of health services.

There are several examples where a lack of integration occurs. The public health services provided by local health departments and community action agencies are usually not closely integrated with primary care services. Mental health and substance abuse services are currently delivered through a largely uncoordinated system of providers. This includes some publicly funded mental health and substance abuse providers, various private mental health practitioners, and primary care physicians, with each group focused on their own area of emphasis. Emergency medical services are typically more plentiful, but they are poorly integrated within the overall health care system and rural EMS systems often lack advanced life support capacity and 911 notification and dispatch services.

FUTURE CHALLENGES AND DEVELOPMENTS

The dynamic nature of the health care environment continues to produce major challenges and offers some new opportunities to improve access to care. With health insurance premiums projected to rise at higher rates, a larger number of people in Nebraska are likely to lose their health insurance coverage. Therefore, more individuals will be forced to rely on the state's fragile "safety net" system. The current safety net is more of a patchwork of "essential community providers" rather than a cohesive system that covers the entire state. Essential community providers are defined as those providers that traditionally serve Medicaid, uninsured, and other underserved or vulnerable populations.

There are several health care providers that serve Medicaid and uninsured patients. However, only the community health centers in north Omaha and Gering, the Indian Chicano Center in south Omaha, the Lincoln-Lancaster County Health Department Primary Care Clinics, and the Nebraska Urban Indian Medical Center in Lincoln receive some public funds and provide more comprehensive primary care services. Many other essential community providers provide more selective types of services. Some of these providers include the Title X family planning clinics, the Title V maternal and child health clinics, migrant health clinics, sexually transmitted disease clinics, community mental health centers, regional mental health hospitals, and Head Start offices.

In addition to these publicly funded providers, many physician-operated certified rural health clinics, other private physician clinics, and hospitals provide most of the uncompensated care in the state. A major threat to the provision of health care to the uninsured is the expansion of managed care. The

growth of managed care in urban areas has begun to replace revenue and made it more difficult for private health care organizations to treat uninsured patients. If managed care enrollment expands significantly in rural areas, the effects could become even more devastating because rural providers generally have smaller profit margins.

Another major threat to preserving a safety net of providers is the gradual elimination of cost-based reimbursement under Medicaid for community health centers and rural health clinics. According to the provisions of the 1997 Balanced Budget Act, the phase-out of cost-based reimbursement will be completed by 2003. However, if states choose to continue a policy of cost-based reimbursement, the federal government will pay their share of the matching funds, which is about 60 percent of the total cost. At this time, Nebraska continues to pay full cost reimbursement to both community health centers and certified rural health clinics.

If cost-based reimbursement under Medicaid is eliminated, it will result in further erosion of the safety net. Community health centers depend heavily on Medicaid revenue and a significant decline in this revenue base could result in a decrease in some services. Although rural health clinics are less dependent on Medicaid revenue (10 to 15 percent of the total), a reduction in Medicaid revenue could result in fewer Medicaid patients treated and, in all likelihood, a decrease in the amount of charity care provided to uninsured patients.

Another area of concern is the access to dental services. Currently, 47 rural counties have been designated by the state as dental health professional shortage areas. One dentist has received funds under the state loan repayment program, but more are expected to take part in this program in the near future.

In addition to the availability of dentists, many people in Nebraska lack dental insurance coverage or the necessary income to visit a dentist on a regular basis. Also, in the mid-1990s, many dentists stopped treating Medicaid patients or closed their practices to new patients. However, during the past two years, the Nebraska Dental Association (NDA) has organized several meetings with Dental Medicaid Program and the net result has been an agreement to raise the reimbursement rate for dentists. In addition to raising the fee schedule, NDA worked with Medicaid to revise dental Medicaid policies, which had not been updated in over 30 years. These revisions should take effect in January of 2000. These changes, along with extensive education programs, have increased the number of dentists participating in the Medicaid program.

POSITIVE DEVELOPMENTS

There are several positive developments that have the potential to remove some of the financial and geographic access barriers. In the last two years, considerable progress has been made in the recruitment and retention of health professionals. For example, the number of federal health professional shortage areas dropped from 50 to 38 and the number of communities actively recruiting family practice physicians declined from 60 to less than 30. Also, the supply of physician assistants and nurse

practitioners is more than adequate to meet the needs of the population. There are several factors that have contributed to the enhanced availability of primary care practitioners, including: 1) federal and state scholarship and loan repayment programs, 2) the placement of foreign-trained physicians through the J-1 visa program, 3) a larger number of medical students choosing family practice, 4) more attractive community practice sites, and 5) various programs initiated by the University of Nebraska Medical Center, Creighton University Medical School, and other residency programs.

One of the strategies that has been used by rural communities to enhance the recruitment and retention of primary care practitioners is to develop *certified rural health clinics*. Currently, there are 84 certified rural health clinics in Nebraska. These clinics receive reasonable cost-based reimbursement from Medicare and Medicaid if they are located in a federally-designated medical underserved area or a health professional shortage area and use a physician assistant, nurse practitioner, or a nurse midwife at least 50 percent of the time.

Rural hospitals now have the opportunity to convert to critical access hospitals. Under this program, a hospital receives cost-based reimbursement from Medicare and more flexible staffing requirements. However, the length of stay is limited to a maximum of 96 hours and there can be no more than 15 acute care patients in the hospital at any given time. This program has the potential to keep many small rural facilities open, enhancing a community's ability to recruit and retain health professionals. With additional revenue, some rural hospitals may even be able to offer new services such as non-emergency transportation services.

Another program that has potential to improve access to care for children is Nebraska's State Children's Health Insurance Program called *Kids Connection*. This program provides health insurance to uninsured children with family incomes at or below 185 percent of the federal poverty level. Since the implementation of the program in September of 1998, the *Kids Connection* program has enrolled over 18,000 uninsured children. The goal of the program is to enroll another six thousand Nebraska children.

TELEHEALTH

Another positive development for rural providers and facilities is making better use of telecommunications and information technology to provide telehealth services. Telehealth can enhance the practice of health care delivery, diagnosis, consultation, treatment, and the transfer of medical data and education, especially to remote areas. Telehealth has been proven effective in the areas of radiology, pathology, cardiology, psychiatry, pharmacology, public health, and patient/medical education.

Telehealth has the potential to overcome many of the health problems experienced in rural areas. Perhaps the greatest advantage is that it can enhance the availability of medical care in isolated rural areas because rural patients now have greater access to specialty consultation. From a patient's perspective, telemedicine can significantly reduce travel costs and allow the patient to receive more timely medical care services. Other advantages include:

- ! Reducing the isolation felt by many primary care physicians and other health care professionals in underserved areas;
- ! Enhancing the recruitment of physicians and health care workers to underserved areas;
- ! Increasing the financial viability of rural institutions and providers through patient retention and cost reductions;
- ! Facilitating the referral/consultation process between physicians; and
- ! Providing training and updated information to health professionals in rural areas.

Currently, many insurance carriers reimburse the consultation between the specialist and the primary care professional. The enactment of LB 559 in 1999 allows Medicaid to reimburse health care professionals for telehealth services beginning on July 1, 2000. However, Medicaid and third party payors do not reimburse for the cost of the equipment or yearly transmission fees. If Nebraska is to realize the potential of telehealth services, additional private, state, or federal funds must be found to build the necessary infrastructure.

RURAL HEALTH NETWORKS

Despite the success of these programs and the recruitment and retention efforts by small communities, many communities still do not have an adequate supply of primary care and mental health professionals, nurses, and some allied health professionals. Because of the large number of communities with small population bases, it will be difficult to totally close the gap. One of the strategies that communities can use is to form multi-county (community-based) rural health networks. These networks, such as those funded under a grant from the Robert Wood Johnson Foundation in 1993, are able to combine their resources and expand their population base, which makes it easier to recruit health professionals. Networks also have the advantage of delivering services more efficiently and competing more effectively in a managed care environment. These networks will be in a better position to help shape the local health care delivery system, gain greater control over clinical decision-making, collaborate with the local public health system, and retain a greater share of the health care dollars within their local communities.

Long-term success of networks hinges upon their ability to provide a broad array of cost-effective health care services in local communities. In order to accomplish this, both formal and informal linkages need to be developed with the safety net providers, local public health departments, and medical specialists in secondary and tertiary care centers. These linkages will be enhanced by the implementation of improved systems of emergency and non-emergency transportation, as well as telecommunication systems linking the communities. When these linkages are in place, the delivery of public health, mental health and substance abuse, and human services should be less fragmented and more readily available

in many parts of the state. An integrated network also has more resources to develop more effective quality assurance and quality management programs.

RECOMMENDATIONS

1. Policies must be developed at the state level that ensure access to comprehensive health services to all persons regardless of their ability to pay or immigration status. In order to achieve this goal, the state should:
 - ! Explore expanding the *Kids Connection* program to cover all children at 200 percent of the federal poverty level.
 - ! Continue to aggressively promote the *Kids Connection* program and target outreach efforts to specific racial and ethnic minorities and other underserved population groups by building on successful models.
 - ! Collaborate with the business community to explore options for increasing the availability of health insurance coverage. These options should include programs to promote greater self-sufficiency and enhance employability (*e.g.*, job training and education) as well as creating insurance purchasing pools, and assessing the cost-effectiveness of expanding Medicaid coverage.
 - ! Continue full cost-based reimbursement under Medicaid for certified rural health clinics, community health centers, and other health programs to help preserve these safety net providers.
 - ! Explore Medicaid funding options to help sustain critical access hospitals.
 - ! Collaborate with the insurance industry and health care providers to reimburse safety net providers such as well child clinics, public immunization clinics, community health centers, sexually transmitted disease clinics at 100 percent of cost for services provided to their clients.

2. In order to increase the supply of health professionals in health professional shortage areas, the state should:
 - ! Continue to support the state's incentive programs (scholarship and loan repayment).
 - ! Continue to reimburse health care professionals for telehealth services under Medicaid.
 - ! Continue to support the recruitment and retention technical assistance efforts of the Office of Rural Health in rural communities.
 - ! Initiate training experience, and whenever appropriate, develop integrated and interdisciplinary health professional training experiences in rural areas for all health professional education

programs. Integrated and interdisciplinary training opportunities could involve students in medicine, pharmacy, mental health, dentistry, nursing, and public health.

3. The HHS System should work with UNMC's continuing education program and other appropriate training centers to develop a training program on cultural competence for providers who work in the 14 counties in Nebraska with a high concentration of racial/ethnic minorities.
4. The HHS System should seek private foundation and federal funds to encourage the development of integrated rural health systems that include primary care and hospital services as well as public health, emergency medical services, and mental health and substance abuse services.
5. To improve rural emergency medical services (EMS), the HHSS System should consider:
 - ! Establishing a universal 911 system throughout the state.
 - ! Forming a task force to explore new models for integrating EMS services with hospital networks under the critical access hospital program.
 - ! Enhancing training opportunities for EMS volunteers using grant funds from the federal Medicare Rural Hospital Flexibility Program.
 - ! Providing funds for implementing the trauma system plan.
 - ! Promoting regional EMS networks that include community-based advisory committees.

STRATEGY VII – IMPROVING ACCOUNTABILITY BY DEVELOPING AND MONITORING PERFORMANCE-BASED STANDARDS AND MEASURES AT ALL LEVELS AND IN ALL PROGRAMS

In order to make the best use of limited resources it is essential to identify which entities are accountable for the results of decisions and actions in the health and medical system. Some of the key questions that must be answered are:

- ! What are the measures or indicators that will be used to assess improvements in the public health system?
- ! Can increased financing for the public health infrastructure be linked to improved health outcomes?
- ! Does the current governance structure clearly identify who is responsible for protecting the public from health risks?
- ! Who is responsible for monitoring the quality of care under managed care and fee-for-service plans?

In order to answer these and other important questions, a system of performance monitoring needs to be developed. Performance monitoring is “a tool for evaluating the delivery of personal health care services and for examining population-based activities addressing the health of the public.” Performance monitoring is a continuing process that involves selecting indicators that can be used to measure the impact of intervention strategies for health improvement, collecting and analyzing data on those indicators, and making the results available to the public. Once the results are available, it is possible to hold specific entities more accountable. Over time it should be possible to estimate the value the community receives for the money the nation or a state spends on health and medical care.

The key to accountability is to develop a specific set or sets of measurable performance indicators that can be linked to entities who are responsible for implementing health improvement strategy. These indicators should not be one-dimensional, but rather a balanced mix of population-based measures of risk factors, health outcomes, and health systems-based measures of services performed.

In the private sector performance-based assessments of health care have focused on increasing the quality of care for managed care plans. These plans have developed “report cards” using their own indicators or those developed by the National Committee on Quality Assurance (NCQA), the Joint Commission on Accreditation of Health Care Organizations (JCAHO), and the Foundation for Accountability (FACCT).³⁰

In the public sector, similar efforts have focused on performance measures for Medicare and Medicaid managed care plans. Many of these efforts use the indicators already developed by NCQA or other organizations.

In the public health sector, early efforts focused on the 1990 and 2000 national, state, and local objectives as well as upon the Model Standards for Healthy Communities that were developed by the American Public Health Association (APHA) in the early 1990s. More recently, some federal programs such as the preventive health and health services block grant (PHHSBG), diabetes control, and the maternal and child health block grants (MCHBG) are requiring states to meet certain performance criteria.

Nebraska and most other states are still in the early stages of developing performance indicators. In Strategy 1, some performance standards were identified that could be used by all public health agencies to assess their performance. It was recommended that a high-level task force be organized to further develop performance standards and measures. In Strategy 2, the *Outcomes Toolkit* was described as a mechanism that will be used by both the state and local community agencies to track the progress of various high-priority goals and intervention strategies.

GOVERNANCE OF PUBLIC HEALTH IN NEBRASKA

Federal, state, and local governments have the responsibility and should be held accountable for protecting and improving the public's health. At the state level, the law provides specific responsibilities for protecting the health and environment in certain areas, such as controlling infectious diseases, monitoring water quality, collecting and assembling vital statistics and other data, monitoring quality of care provided by managed care organizations, credentialing facilities and health professionals, and providing financial incentives for physicians and other health providers to practice in medically underserved areas. However, state laws fail to identify the overall scope of responsibility, the core functions of public health, or provide a clear distinction of the authority and responsibilities between the state and local jurisdictions, and the assistance needed as well as the financial and regulatory support mechanisms for local public health departments/community health systems.

At the local level, state statutes authorize the creation of county, district, or city-county health departments. They also require the county board to establish a Board of Health. This Board has numerous responsibilities, including the selection of a qualified director for the local health department and holding regular meetings. They also have the authority to enact rules and regulations for the protection of public health and the prevention of communicable diseases within its jurisdiction and subject to the review and approval of these rules and regulations by the HHS System. Some of the other major responsibilities include a mandate to make necessary sanitary and health investigations and inspections; investigate the existence of any contagious or infectious diseases and adopt measures to control these diseases with the approval of the state; distribute free of charge all vaccines, drugs, serums obtained from the state or purchased by the county board; give professional advice and information to all city, village, and school authorities on sanitation and public health; and implement and enforce an air pollution control program under the provisions of the Clean Air Act.

Although some of the local and state laws are clear, many of the roles and responsibilities of the state and local public health agencies need further clarification. It is also critical to define the mission and core functions of public health so that there is a better understanding of which local and state entities are

responsible for which activities. At both the state and local levels, some core function responsibilities may reside with more than one agency. At the state level, for example, the HHS System and the Department of Environmental Quality (NDEQ) are both responsible for monitoring water quality.

IMPROVING QUALITY

Both local and state health departments are responsible for protecting the public's health. For example, some local health departments have the responsibility for food inspection and water quality monitoring, while the state provides this function in most rural areas. However, local health departments should assure that these activities are being provided in their areas.

From a quality perspective, the state has more extensive responsibilities. For example, the Department of Regulation and Licensure in the HHS System collaborates with 24 professional governing bodies to develop and enforce standards for 32 health professions. The Department also works in partnership with hospitals, nursing homes, health clinics, mental health centers, and other health service agencies that are licensed to assure consistent standards of care. In addition, the Department helps train EMS personnel, licenses ambulances, and is working to build a statewide trauma system. Finally, the Department has major responsibilities for monitoring water and air quality in most areas of the state.

CREDENTIALING REFORM

In the past two years, the Department of Regulation and Licensure has undertaken a two-part Nebraska Credentialing Reform 2000 study in response to a legislative bill passed in 1997. The purpose of the study was to identify a comprehensive design for a model system for the credentialing and regulation of health care practitioners, facilities, and providers in Nebraska.

The first part of the study examined the regulatory system for facilities. The study concluded that:

Various application, licensure, survey/inspection, discipline, and abuse reporting activities are not coordinated. These processes are costly in time and money to both providers and the consumer. The regulation and survey processes are regarded by providers as punitive rather than educational and based on meaningful results, yet consumers might regard them as not being punitive enough. Preventive practices are few.³¹

Based on the results of the study, several recommendations were made, including:

- ! Reduce overlap and duplication in the regulatory process. For example, a system of one-stop reporting for incidents of abuse or possible abuse should be instituted.
- ! Develop a results-based regulatory process and emphasize prevention rather than punishment.
- ! Increase the level of coordination between and among regulatory agencies.
- ! Reduce the complexity of the regulatory process and streamline selected aspects of the compliance assurance process.

! Establish criteria to determine what types of and at what level facilities should be credentialed.³²

The second part of the study focused on designing a model system for the credentialing (*i.e.*, licensure, registration, and certification) of health care practitioners and providers in Nebraska. An assessment of the current credentialing system found several areas that could be improved. Some of the major concerns were:

- ! Some health care and human services professionals are credentialed by more than one area of the HHS System and there are significant discrepancies in the way credentialing terms are applied to health professionals.
- ! A greater range of options is needed with regard to the types and levels of credentialing.
- ! Although there is an established program that focuses attention on the public health implications of proposals for new credentialing or for changes in the scopes of practice of currently credentialed health professions, there is not a process to determine whether or not there is a continuing public need to credential a currently credentialed health profession.
- ! Because of the variability in the area of continuing competency, new policies are needed.
- ! Revisions are needed in the areas of temporary licensure and funding.
- ! It is essential to involve the public and customers on the boards and the evaluation of the credentialing system.³³

In response to these findings, several recommendations were made, including:

- ! Reduce overlap and duplication in the credentialing process among different agencies.
- ! Participate in national and international efforts to increase efficiency and uniformity in areas of professional credentialing.
- ! Require that all managed care entities, including HMOs, operating in Nebraska, have a Nebraska-licensed health care professional who is accountable for health care decisions of the managed care entity and can be disciplined for unprofessional conduct.
- ! Consolidate boards that regulate closely related professions.
- ! Continue to encourage consumer input into the regulatory process.

- ! Develop a defined method of evaluation or feedback loop for measurement of the improvement and/or quality of health, safety, and welfare of the consumer resulting from the credentialing system.³⁴

Implementation of these and other recommendations is already underway. Some internal administrative actions have been undertaken to reduce duplication and streamline regulations. In addition, some major state laws would be changed if the Uniform Facility Licensure Act (LB 819) and the Health Professions Act (LB 828) are enacted. The Department of Regulation and Licensure has also begun to focus more on providing technical assistance and education, thus reducing the amount of formal enforcement action.

PERFORMANCE MONITORING AND MANAGED CARE

Throughout the 1990s, organized delivery systems began offering various types of managed care plans. Managed health care has been defined as “a system of health care delivery that tries to manage the cost of health care, the quality of care, and access to that care.”³⁵ A managed care organization 1) insures members – either by itself or through an intermediary, 2) furnishes covered benefits through a defined network of participating providers, and 3) manages the health care practices of participating providers.³⁶

Nebraska has also experienced a significant growth in managed health care. In the metropolitan areas, the vast majority of public and private employees as well as Medicaid clients are enrolled in some type of managed care plan. In rural areas, managed care is growing at a considerably slower pace, but rising reimbursement rates under Medicare managed care could result in higher enrollment.

As part of their core function responsibilities, public health agencies are concerned with the availability, accessibility, and quality of health and medical services. The rapid expansion in the enrollment of managed care plans provide great opportunities for managed care organizations and public health agencies to work together on common issues (*e.g.*, community needs assessment, outreach and enabling services, and health promotion and disease risk factor prevention activities). At the state level, the HHS System, along with the Department of Insurance, are responsible for assuring and monitoring the quality of health care services provided by managed care entities.

MANAGED CARE AND IMPROVEMENTS IN PUBLIC HEALTH

A 1996 report by the Institute of Medicine (IOU) concluded that if appropriate partnerships can be developed between managed care organizations and governmental public health departments, managed care can make an important contribution to improving the health of the public. It is possible to hold managed care plans accountable for the quality of care provided because the plans are responsible for delivering care to a defined group of enrollees. As a result, managed care organizations can monitor the health outcomes of their enrollees and examine their use of services. In some but

certainly not all managed care organizations, the health of their enrollees is closely tracked through large data systems. The National Committee for Quality Assurance (NCQA) is the lead accrediting body for managed care plans. Using a set of performance measures, NCQA can compare various managed care plans in the following areas:

- ! Effectiveness of care (*e.g.*, eye exams for people with diabetes to detect and prevent diabetic retinopathy).
- ! Access and availability of care (*e.g.*, availability of language interpretation services)
- ! Satisfaction with experience of care (*e.g.*, results of member satisfaction survey).
- ! Health plan stability (*e.g.*, indicators of financial stability)
- ! Use of services (*e.g.*, frequency of ongoing prenatal care).
- ! Cost of care (*e.g.*, rate trends).
- ! Informed health care choices (*e.g.*, new member orientation/education).
- ! Health plan descriptive information (*e.g.*, chemical dependency services).

Many of the performance measures in these areas encourage managed care plans to focus more on disease prevention and health promotion. A focus on promoting healthy behavior is reinforced by the financial incentives used by many managed care organizations. In many plans, providers bear some of the risk of the cost of future illnesses.

Unfortunately, many managed care organizations do not regularly monitor the health of their enrollees. They often fail to invest in the data systems that are needed to collect the necessary information. In addition, relatively few managed care organizations in Nebraska and the nation are currently using capitated contracts to reimburse physicians. Also, most primary care physicians are still in relatively loose networks where medical directors have insufficient authority to induce them to change their methods of practice. Finally, many plans do not have adequate staff to implement the quality improvement activities in their physician network.

Despite some of the barriers, there are many opportunities for managed care organizations and public health agencies to form close alliances. For example, health promotion and disease/risk factor prevention activities are becoming increasingly important to managed care plans seeking long-term cost savings through healthier enrolled populations. As more managed care organizations seek accreditation from NCQA, it is likely that disease prevention and risk-reduction activities will receive an even greater emphasis.

Another potential area for collaboration is the collection of population-based data on health status, disease incidence, and risk factor prevalence. Public health departments have used these data sets to analyze health status trends, identify new or resurgent public health threats, and address the demands for accountability from policymakers and taxpayers. Managed care plans need this information as they attempt to expand their market share and anticipate the health care needs of the potential new enrollees.

There is also a need to exchange treatment records for managed care enrollees who are treated in public health clinics and to share information from a jointly operated computerized immunization registry. In addition, it is possible to collaborate in funding a community survey that will help identify health risks and behaviors. Finally, staff from public health departments can work with managed care plans, including Medicaid, to develop guidelines that should be followed by network providers. In Nebraska representatives of the Diabetes Control Program in the Health and Human Services System, the managed care organizations, Medicaid, practicing physicians, and diabetes-related organizations have collaborated together to develop the *Nebraska Diabetes Consensus Guidelines*.

The Diabetes Program has also worked with the Medicaid Managed Care Program to incorporate the use of the guidelines into the Medicaid contracts and to develop measurement systems for their impact. All physicians with specialties in family practice, pediatrics, and internal medicine have received copies of the guidelines. Educational programs have been presented to physicians, office managers, and nurse practitioners in eight towns across the state. Clarkson Family Practice, Lincoln-Lancaster County Health Department, the Ponca Clinic, and the University of Nebraska Medical Center's School of Nursing are among those who have committed to utilizing the guidelines. The three insurers for Medicaid Managed Care plans have agreed to utilize these guidelines for quality assurance reviews, thereby increasing the likelihood that physicians will use them. This model can be extended to many other diseases such as asthma, cardiovascular diseases, and cancers.

STATE OVERSIGHT OF MANAGED CARE PLANS

The Health and Human Services System is directly involved in performance monitoring efforts in both the public and private sectors. In the public sector, the state Medicaid Managed Care Program is responsible for evaluating access, cost, and the quality of health care services provided by the managed care plans to Medicaid enrollees.

The Nebraska Medicaid Managed Care Program began enrolling Medicaid clients in managed care plans in July of 1995. The program has contracted with two plans, Mutual of Omaha and United Health Care of the Midlands, to offer pre-paid medical and surgical services in the state's two metropolitan areas. The program has also contracted with Blue Cross and Blue Shield of Nebraska to provide a primary care case management plan. In addition, the program has contracted with Options to provide managed behavioral health services on a statewide basis. As of March 1, 1999, the total enrollment in the two medical/surgical plans was 28,000. Another 22,000 Medicaid clients are enrolled in a primary care case management. In rural areas, the traditional fee-for-service Medicaid plan remains in operation.

In the behavioral health managed care plan, the total enrollment is 95,000 and includes both rural and urban areas.

In 1995, the Medicaid Managed Care Program began contracting with MEDSTAT to analyze encounter data submitted by the three managed care plans. However, numerous difficulties have substantially slowed the submission of useful encounter data. By January of 1998, MEDSTAT was receiving encounter data from all of the managed care plans. Sufficient data were available in 1999 to begin analyzing the data based on indicators related to access, quality, and cost. These indicators were developed by a work group that consisted of the staff from Medicaid, epidemiology, family health, and public health assurance.

In order to build capacity, an epidemiologist has been hired to focus on analyzing the Medicaid managed care encounter data. This person will also work closely with MEDSTAT and the program analyst in the Medicaid Program to evaluate access, quality, and cost of health care services provided by the Medicaid Managed Care plans.

Since the appropriate data collection systems and the capacity to analyze the data are now in place, the effectiveness of managed care plans can be evaluated. To be effective, however, this must be an ongoing effort and is a fundamental change from the previous responsibilities of the state Medicaid program as well as the relationship between these programs and the providers of health care services.

PRIVATE SECTOR

There are state laws and regulations that apply to managed care plans with enrollees from the private sector. Prior to 1998, the Department of Insurance and the Health and Human Services System, Department of Regulation and Licensure were responsible for administering these laws and regulations. In general, the Department of Insurance had the authority to monitor the financial aspects of prepaid managed care organizations and the Department of Regulation and Licensure tended to monitor quality and consumer protection.

The Department of Insurance was responsible for regulating the amount of capital reserves, solvency, timely claims payments, the benefit package, premiums/charges, rate setting, tax assessment, provider risk assumption, and grievance procedures. These regulatory activities applied to HMOs and risk-bearing PPOs. If a health plan was found to be out of compliance, the Department of Insurance could levy fines, terminate licensure, require plans of correction, suspend further enrollment, enforce an agency action subject to a court challenge, and/or issue a cease and desist order.³⁸

The HMO statutes authorized the Nebraska Health and Human Services System to review and monitor HMOs to assure that:

- ! Health care services are available and accessible and continuity of care is maintained.

- ! An established ongoing quality of health care assurance program is maintained.
- ! Procedures are established to develop, compile, evaluate, and report statistics. According to the regulations, these statistics shall include demographic information, number of staff, direct ambulatory encounters, total hospital inpatient days and discharges, total dollar amounts for referrals, total dollar amounts of clinics for emergency services, number of laboratory procedures and x-ray examinations, and statements of revenues and expenses.
- ! Grievance procedures are developed.

While the Department had the authority to regulate HMOs, it was a fairly limited review, generally lasting only about two hours and HMOs were not required to submit any statistical data to the Department. The Department received only a few complaints in the past few years, but these complaints were investigated and necessary actions were taken.

In 1998, the Legislature enacted a law (LB 1162) that would provide for more comprehensive regulation of managed care plans and greater patient protections. There were six main sections of the law. The first section is entitled the Utilization Review Act. Under this Act, managed care plans would have to use documented clinical review criteria based on sound clinical evidence. These criteria would be evaluated periodically to assure ongoing efficiency. Consumers would also have access to the review process because health carriers would have to include a description of the utilization review procedures in member handbooks and enrollment materials.

The second major section of the law more broadly defines emergency services and eliminates gag clauses (*i.e.*, provider incentives for offering less than medically necessary services and forbidding providers from discussing treatment options that either are not covered by the plan or are considered too costly).

The third section requires health insurance carriers to establish comprehensive health care professional credentialing verification programs. The programs would ensure that participating health care professionals meet specific minimum standards of qualification.

The fourth section establishes standards for the creation and maintenance of provider networks by health insurance carriers. These standards define the adequacy, accessibility, and quality of services offered under a plan through written agreements between carriers offering plans and participating providers. These agreements would address standards, terms, and provisions under which services would be provided to covered people.

The fifth section addresses quality assessment and improvement. This section establishes criteria for the quality assessment and quality improvement activities of all health carriers that offer managed care plans. Each carrier must develop a written quality improvement plan that describes how the health carrier intends to:

- ! Analyze both processes and outcomes of care.
- ! Identify the targeted diagnoses and treatments to be reviewed each year.
- ! Use a range of appropriate methods to analyze quality.
- ! Compare program findings with past performance and with internal goals and external standards.
- ! Measure the performance of participating providers and conduct peer review activities.
- ! Utilize treatment protocols and practice parameters developed with appropriate clinical input.
- ! Evaluate access to care for covered persons according to standards established by the insurance laws of this state. The quality improvement plan describes the health carrier's strategy for integrating public health goals with health services offered to covered persons under the managed care plans of the health carrier, including a description of the health carrier's good faith efforts to initiate or maintain communication with public health agencies.
- ! Implement improvement strategies related to program findings and evaluate these strategies at least annually.

The final section establishes standards for grievance procedures. The law defines a grievance as a written complaint submitted according to the carrier's grievance procedures by or on behalf of a covered person regarding any aspect of a managed care plan. Carriers must establish first-level, second-level and expedited grievance processes.

In terms of authority, the Department of Insurance has the responsibility for overseeing and monitoring this law. However, the Director of Regulation and Licensure in the HHS System is mentioned specifically in the law. The director can review the written description of the quality assessment program of an HMO. The director also has access to the intermediary's books, records, financial information, and any documentation of health care services provided to covered persons to determine compliance with the network adequacy standards.

CONCLUSION

Now that more people in Nebraska have enrolled in managed care plans, the pressure to provide greater oversight has increased. One of the key policy issues is to what extent the state should regulate and monitor managed care entities. Another issue is the extent to which the state should rely on some external authority (*e.g.*, the National Committee on Quality Assurance) to regulate managed care plans. The third issue relates to how extensive this oversight should be (*e.g.*, data reporting, consumer satisfaction surveys, grievance process review).

Some guidance for these issues was provided in the 1998 legislation, but Congress is also seriously considering several managed care protection bills which could provide more uniform state standards. This is a moving target that is likely to change over time. Adding to the confusion is the fact that the current roles and responsibilities of the Department of Insurance and the HHS System are not well understood by the public.

RECOMMENDATIONS

The HHS System should:

1. Form a high level task force to further develop performance standards and indicators to better measure the progress and effectiveness of the public health infrastructure (also, see Strategy 1).
2. Work with the Governor's Office and the State Legislature to introduce an interim study resolution to review and evaluate the state's public health laws. Some of these laws are out-of-date and inconsistent with the direction of current public health activities (also, see Strategy 1).
3. Work with health facilities, health professional boards, and individual providers to implement the Uniform Facility Licensure Act (LB 819) and the Health Professions Act (LB 828) now being considered by the Legislature.
4. Continue to work with all managed care organizations to develop treatment guidelines for selected diseases (*e.g.*, asthma).
5. Continue to build capacity in the HHS System to analyze and evaluate the quality of care provided by all plans (*i.e.*, managed care, primary care case management, and fee-for-service) to Medicaid enrollees.
6. Work closely with the Nebraska Partnership of Local Health Departments to help clarify the roles and responsibilities of state and local public health agencies and to develop mutual goals for public health improvement.
7. Develop linkages between key databases (*e.g.*, public health, Medicaid encounter data, and hospital discharge data).
8. Improve information sharing between current public health programs and managed care organizations where common interests exist. For example, local public health clinics and HMO providers often do not communicate effectively when a child receives an immunization. The net result is an incomplete medical record. Another example is the communication between public health clinics and HMOs regarding prenatal care provided to pregnant women. By bringing together representatives from managed care organizations and local public health clinics, potential solutions for sharing information can be discussed. The state should be responsible for organizing these meetings.
9. Assure that state managed care quality assurance/improvement requirements and reviews are consistent with the requirements and reviews mandated by other public or private organizations.

In order to begin this process, the state should gather and compare state Medicaid requirements and reviews, state licensure requirements and reviews, Insurance Department responsibilities, and private accreditation standards (NCQA, JCHAO). In those areas where there is duplication or inconsistency, current review requirements could be revised or coordinated. Also, certain external accreditation standards could be accepted without a duplicate state review.

10. Initiate more direct quality improvement or provider feedback efforts. For example, Arizona has used a software package developed by the Centers for Disease Control and Prevention (CDC) to evaluate immunization performance in managed care plans. The advantage of this software is that it can give immediate feedback to individual physicians regarding their immunization rates
11. Continue to build partnerships and mutual understanding among local public health departments, managed care organizations, and purchasers through activities such as:
12. Joint projects between staffs, including epidemiologists.
13. Mutual representation at conferences of public interest.
14. Technical assistance in areas such as immunization and cancer registries.
15. Joint advocacy for public health priorities such as enforcement of laws to prevent tobacco purchases by minors.
16. Collaborate with Managed Care Organizations (MCOs) and state and local health departments to standardize and improve their information systems so that these systems can be used for community-wide health assessment and surveillance of notifiable conditions, health determinants, and risk factors while maintaining confidentiality. Examples include:
 - ! Modifying the state's Behavioral Risk Factor Surveillance System (BRFS) so that, in addition to providing population-wide data on HIV/AIDS risk and prevention behaviors, it provides information to individual HMOs on their member populations;
 - ! Using MCO infectious disease laboratory data systems for notifiable disease surveillance of the MCO population; and
 - ! Developing model public health surveillance and information systems that utilize electronic consumer records and insurance billing information.

STRATEGY VIII – DEVELOPING AND IMPLEMENTING A PROMOTIONAL CAMPAIGN TO INCREASE THE VISIBILITY AND UNDERSTANDING OF VARIOUS PUBLIC HEALTH ACTIVITIES FOR POLICYMAKERS AND THE GENERAL PUBLIC

In order to strengthen and transform public health, it is critical to increase the visibility and understanding of public health with our policy makers and the general public. There are major challenges to accomplishing this goal because the work of public health professionals is generally unknown and invisible. As a result, public health activities are largely unappreciated and often taken for granted.

Public health professionals tend to play the roles of stagehand, scriptwriter, lighting crew, and director without whom the show would fail. Our many activities are fundamental to securing everyone's overall well being. However, public health functions often lack the dramatic immediacy and intensity of medical interventions. The life and death concerns of public health focus more on monitoring significant long-term trends rather than responding to the sudden threat of disease to an individual. With the exception of our response to outbreaks of infectious diseases, public health is rarely in the news or on people's minds.

And yet it is the ongoing accumulation of public health epidemiological information that contributes inevitably to changes that save many, many lives and prevent much suffering. It is the persistent vigilance and care of public health inspectors who ensure the safety of the foods we eat, the air we breathe, and the water we drink. It is the outreach of public health professionals addressing the unmet needs of vulnerable communities that ultimately benefits society as a whole. It is our health education messages that save health dollars by promoting healthy behaviors and increasing the use of early screening for preventable life threatening conditions like hypertension, breast cancer, and cholesterol. It is the continual dialogue between communities and public health professionals that mobilizes concerned action and creates lasting changes.

Another major challenge to public recognition of our field's contribution to everyone's health is that public health interventions tend to be difficult to do. For instance, many of our health education messages call for life style changes (*e.g.*, smoking cessation, dieting, regular physical activity, abstinence from drugs and sexual promiscuity) that require the hard work of breaking familiar habits and stepping away from comfortable patterns of activity and relationships. The results of these changes are rarely instant nor do they carry a certain guarantee of protection from eventual injury, illness, or death. Moreover, the impact of health education messages is often muted because the recommended changes in individual habits are linked to the need for social changes (*e.g.*, eradicating poverty, eliminating racism, increasing education and literacy levels, enhancing access to health care, and improving environmental health conditions). Far-reaching impact on health will require addressing the social and environmental conditions that give rise to and sustain disease or risk-behaviors.

RECOMMENDATIONS

1. Activate Media Advocacy Strategies

- ! Tailor the content of public health messages so that they are relevant to the concerns of specific audiences. The most effective messages are those that fit with and build upon audiences' priorities and goals. Messages must communicate to specific audiences how public health activities respond to their concerns; meet a perceived need(s); support what they also want to see happen; and demonstrably bring about some meaningful advantage they value.

***Example:** In North Omaha, recent public health concern has focused on the high lead levels found in many children. Public health personnel from the county health department joined other concerned citizens and agency representatives to provide the community with information about lead poisoning and its prevention, assistance in interpreting test results, and provision of referrals for follow-through and monitoring services. Their response was timely and the informational messages matched many of the needs of the community.*

Another example of tailoring the message is to use neighborhood and community newsletters. Last spring, student nurses at Creighton University wrote a health column in a neighborhood newsletter about the impact of lead poisoning. Web sites can also be used for communicating messages. Student nurses at Creighton University developed several messages, including one related to the Sudanese population in Omaha.

- ! Match the style and tone of public health messages with what specific audiences find appropriate. It is often most effective to mix quantitative data with qualitative stories. Either way, there needs to be some degree of emotional pull to the message in order for someone to be motivated to listen to its content.

***Example:** Some people in an audience will be moved when they identify personally with a descriptive portrait of someone, a personal testimonial, a life story, or dramatic replay of a public health intervention (e.g. epidemiological sleuthing after an outbreak). Other people are more influenced by numbers that describe the parameters, nature, and extent of an issue. For this audience, public health professionals need to document a problem with measures that highlight the statistical impact of public health interventions.*

The local public health departments have provided speakers at neighborhood association meetings. They can select the speaker to match the audience.

- ! Involve members of the audiences that we are trying to reach in planning and developing public health messages.

Example: The Douglas County Health Department and interested neighbors and business people formed the South Omaha Environmental Task Force which serves as a watchdog for problems such as odors, spills, and other conditions surrounding the packing plants.

- ! Provide community groups with the skills to collect and communicate their own story in their own words as opposed to centralizing all media messages. Efforts that engage community residents and organizations in public health campaigns can make a substantial difference in a community's ability to recognize and solve problems, as well as strengthen the individual's sense of community. It is important, however, to be sure that a consistent message is conveyed.
- ! Ensure that all public health messages recognize and are sensitive to the cultural differences of diverse audiences. Because each racial/ethnic minority group has a unique set of health characteristics and issues, it is critical to involve minority consumers and providers in planning and developing the message.
- ! Piggyback on national stories and promotional campaigns. By building on national stories and applying them to a state or local story, it is possible to generate interest and present a strong message to the public.

Example: When mercury became a national issue due to its toxicity, the state and local agencies organized "mercury roundups" throughout the state.

- ! Establish working relationships with media professionals to set the agenda (*i.e.*, shaping the story to get the attention of journalists), shaping the debate (*i.e.*, telling the story the way you want it told), and advancing the policy. In shaping the debate, it is important to translate what are commonly seen as individual problems (*e.g.*, alcoholism) to social or public policy issues (*e.g.*, promotion and availability of alcohol). In this way, the focus shifts from an individual problem to the environment through which alcohol is made available.

Example: The Buffalo County Community Health Coalition was concerned about the availability of alcohol that was being sold in a convenience store near the high school. By focusing on the location of the sale of alcohol, the coalition was able to shift the debate from an individual student problem to a public policy issue. Using this tactic the City Council recommended that the liquor license should not be renewed, although the Nebraska Liquor Control Commission later reversed the decision and renewed the license.

2. Build Constituencies of Support for Public Health Activities

- ! Strengthen the capacity and commitment of the Nebraska Public Health Association and local health departments to continue their efforts to build strong bases of mutual support among community members, professional colleagues and associations, business, non-profit agencies, and government.

Example: Resources are needed to offer conference workshops and sponsor continuing education opportunities for public health professionals in skill-building on media relations, coalition-building, and community organizing. Specific personnel trained in public relations and policy advocacy are needed to forward public health perspectives, program initiatives, and policy changes.

- ! Work with existing coalitions of support to articulate clearly the contribution from public health in a shared agenda for action.

Example: In the past few years the tobacco control coalition in Nebraska has been extremely effective in creating a shift in public opinion and mobilizing the necessary resources and forces to change public policies.

- ! Build new coalitions within and between local communities, regions, and the state to generate more widespread support for public health activities. Public health professionals can assist with the identification of shared concerns and facilitate communication among partners. These coalitions should include people and institutions who can increase the likelihood of accomplishing the goals of the coalition, lend credibility and legitimacy to the coalition, and recruit new coalition members to expand the coalition's influence.

Example: Members of the Douglas County Health Department are founding members of a new broad-based North Omaha Food Security Policy Council. They have helped recruit council members and taken leadership in setting the Council's agenda for action according to basic public health principles.

- ! Coalitions should establish long- and short-term goals. Once their goals are established, it is important for coalitions to identify the objectives and activities that need to be completed to accomplish the goals.

Example: Long-term goals might include ensuring the sustainability of the aquifer, reducing pesticide exposure and nitrogen run-off from agriculture, reducing infant mortality, traffic accidents, alcohol consumption, and improving vaccination rates. Short-term goals could include the introduction and eventual passage of public health legislation, holding a health fair, conducting a health education media campaign, and completing a community-based needs assessment.

- ! Focus coalitions on positive action and visible, do-able accomplishments. Coalitions are perpetuated when they have an on-going sense that they are accomplishing something meaningful. With the combined efforts of the coalition, it should be possible to achieve within a specified (and relatively short-term) time frame. Small victories lead to bigger ones. For coalition members to feel a sense of commitment to the coalition's goal(s), they will need to perceive some gain from its accomplishment. Also, the task(s) each member takes on to accomplish the

overall goal(s) should be relatively equal to those of others who are in the coalition. And each member should feel that his/her expertise is matched with the particular task they are doing. There should be adequate institutional support for the individual work and meeting time that is needed to complete the goal(s). Meetings should be focused, organized, and yet flexible, and allow for some socializing and fun. The completion of the coalition's activity(ies) should be publicly celebrated and each member should feel acknowledged and appreciated for their contribution.

- ! Identify potential centers of resistance to public health activities and begin to build bridges where possible. At best this can lead eventually to closer working relations. At the least, we will know better how to address the arguments, restraints, or obstacles they may present when it comes time to secure support for public health activities.

Example: Such resistance may come from people and institutions who perceive that public health activities threaten their livelihoods, basis of expertise and influence, status and prestige, or traditional beliefs and practices. In addition, some may have felt betrayed or disappointed by public health professionals and thus, distrust the dependability of our field to address their concerns in an honest, effective, and timely manner.

3. Clarify Public Health Rationales

- ! Public health professionals need to be firmly aware of and able to articulate the philosophical, ethical, and practical rationales for the field. To do so will help to underscore the basis of our commitment to public service and help shape public health priorities. Furthermore, such knowledge will be helpful in countering arguments from those who do not support public health activities. Some areas for consideration might include:
 - ! justifications for population-based health interventions including the principles of enlightened self-interest and distributive justice
 - ! justifications for and impediments to addressing the social, economic, and environmental determinants of health
 - ! constitutional and practical reasons for governmental oversight and involvement in public health activities
 - ! opportunities and limitations for health interventions based on concepts of personal vs. shared responsibility for health risks and outcomes
 - ! the value of planned development

- ! justifications for and the drawbacks of prioritizing the health needs of vulnerable and underserved groups
- ! the significance and limitations of confidentiality in public health interventions

4. Requirements for Implementation: A Public Health Promotion Task Force.

- ! The Public Health Promotion Task Force should be a coordinating body made up of a highly diverse group of representatives from state HHS System and local public health departments/ community health systems, community action agencies, hospitals, other health-related groups, regionally diverse communities, and the media. Ideally, it would have representation from the state legislature as well as the Governor's and county commissioners' office. With some additional representatives, the Community Health Partners Stakeholder Group could easily serve this function.
- ! The task force would be staffed by an expert in public relations, community outreach, and policy-making. The task force, staff person, and budget would be located within the proposed state HHS System Division of Public Health and Community Planning.
- ! The purpose of the task force would be to support public health constituencies to build their promotional capacity. The task force would accomplish the following activities:
 - Develop and enhance communication channels between public health professionals and community members, policy-makers, media professionals, and other health care professionals
 - Coordinate information flow between constituencies of support for public health
 - Encourage joint activities and resource-sharing among public health coalitions to influence the passage of public health policy changes and/or increase the effectiveness of their promotional and outreach initiatives
 - Coordinate the formulation, dissemination, and implementation of long-range public health goals and priorities for the state
 - Assist local public health coalitions with establishing and implementing localized long-range goals and priorities and short-term activities
 - Provide training, technical assistance, and expertise to public health coalitions on how to increase the visibility and impact of their initiatives
 - Sponsor a yearly, state-wide public health promotional campaign through the media

- link public health coalitions with national resources (technical assistance, data, media campaigns, policy trends, and funding opportunities)
- Publish and update a state-wide directory of public health agencies, professional groups, coalitions, supporters, and resources
- Develop a Web page to enhance communication and resource-sharing among public health coalitions
- Coordinate and facilitate the completion of policy-relevant research.

APPENDIX A
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MAKING THE RIGHT TURN:
TRANSFORMING PUBLIC HEALTH IN NEBRASKA
November 1999

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APPENDIX B

LIST OF POTENTIAL PROJECTS AND PROGRAMS FOR FUNDING BY THE EXCELLENCE IN HEALTH CARE TRUST FUND

TYPES OF INITIATIVES TO BE SUPPORTED

The Excellence in Health Care Trust Fund was created by state legislation in 1998. The purpose of the Trust Fund is to award grants in any of the following areas:

1. Conversion of nursing facilities to assisted living facilities or other alternatives to nursing facility care.
2. Activities related to the design, maintenance, or enhancement of the statewide trauma system, support of emergency medical services programs, and support for emergency medical services programs for children.
3. Conversion of hospitals in rural areas to critical access hospitals.
4. The education, recruitment, and retention of primary care professionals, behavioral health professionals, and nurses for medically underserved areas.
5. The development of the health infrastructure for telemedicine, including, but not limited to, high-speed data and medical information transmission.
6. The development and expansion of community-based aging services designed to promote the independent living status of and delay institutional care for elderly persons, including, but not limited to, personal care, respite care, homemaker care, chore, and transportation services.
7. Public health services which focus on health education, preventive health measures, environmental health, assessment and assurance, including services for reservation or service areas of federally recognized Native American tribes in Nebraska and organizations that focus on the health of minority groups.

Within the public health category, applications could be submitted in the following areas:

- ! Projects to implement the Community Health Care Act.
- ! The hiring of school nurses by educational service units, school districts, public health entities, or partnerships between schools and public health entities in order to identify

children for Medicaid eligibility and to provide immunizations and other public health services.

- ! Health education and activities that focus on prenatal care, proper diet, physical activity, the reduction of teen and other unintended pregnancies, the prevention of disease, and other public health problems.
- ! Staffing needs for public health services or education, including recruitment and training.
- ! Pregnancy testing.
- ! Tests and screenings for blood pressure, cholesterol, sexually transmitted diseases, cervical cancer, breast cancer, communicable diseases, and other potential public health problems.
- ! Matching funds for state and federal health programs designed to address public health needs.
- ! Laboratory equipment to enable the Department of Health and Human Services Regulation and Licensure to carry out its powers and duties relating to laboratory services.
- ! Public health environmental services.
- ! Education, research, and outreach programs that specifically address the cause and prevention of smoking-related diseases and smoking prevention and cessation.

The funds cannot be used for abortion, abortion counseling, referral for abortion, or school-based health clinics. These funds also cannot be used to create an entitlement.

APPENDIX C

AN OVERVIEW OF THE FIVE STEPS IN THE COMMUNITY PLANNING PROCESS

BUILDING PARTNERSHIPS AND CONNECTING COMMUNITIES

MANUAL 1: BUILDING A COMMUNITY HEALTH COALITION

Manual I describes a recommended approach for developing an effective community health coalition. The stakeholder team serves as the foundation and core planning group for the community health improvement project. The five key segments Manual 1 are described below.

Secure Sponsorship - A key aspect of building an effective community health coalition includes securing sponsorship for the project. The sponsor should be a respected member of the community and possess strong leadership skills to initiate and sustain the community health improvement project. The sponsor is responsible for recruiting key stakeholders and maintaining momentum throughout the project.

Develop a Stakeholder Team - In addition to securing sponsorship, a team of community stakeholders should be organized. A community stakeholder is an individual who has the interest and tangible and intangible resources to assist in the project. The stakeholder team should represent the diversity of the community and be composed of individuals representing a broad spectrum of community members. This diversity may provide the opportunity for a variety of perspectives to be represented and lead to more creative solutions. The process of developing the stakeholder team requires recruitment, orientation, and strategic planning activities. Additionally, the stakeholder team should publicize the project and begin to build community-wide support.

Define Leadership Structure - A leadership structure should be developed for the stakeholder team. A leadership structure facilitates team activities, enhances communication, and increases effectiveness. Defining and adopting an acceptable leadership structure is critical to the success of the project.

Determine Initial Approach - The initial approach includes identifying available stakeholder resources, developing a stakeholder communication strategy, and identifying stakeholder roles and responsibilities. An inventory of resources can assist in determining potential resource gaps and direct additional stakeholder recruitment efforts. The stakeholder

communication strategy ensures clear communication between stakeholders throughout the project. Determining initial stakeholder roles and responsibilities provides the foundation for effective use of available skills and resources.

Establish Time Frame - For planning purposes, it is important to establish an overall project time frame. The time frame reflects estimates of the relative effort needed to complete each of the respective manual tasks. Available resources should be allocated considering estimated resources required for manual tasks. Based on the relative times and resource allocation, key milestones, deadlines, and dates should be identified. Successful completion of these steps should yield a time frame for the overall project that can serve as a guideline for development and implementation. Individuals participating in the community health improvement project are not expected to have a complete and accurate vision of the entire project at this stage. The timeline should be used for initial planning.

MANUAL 2: ESTABLISHING A FOUNDATION FOR A SUCCESSFUL COMMUNITY HEALTH STRATEGY

Manual 2 describes a recommended approach for establishing a foundation for a successful community health strategy. The foundation should serve as the basis for assessing community health in Manual 3 and completing subsequent manuals. The five key segments of Manual 2 are described below:

Define the Community - Accurately defining the community is critical to successfully improving community health status. A community may be defined by geographic, demographic, sociocultural, socioeconomic, and sociopolitical dimensions. It is critical that a single unified definition be developed that accurately reflects the community's unique attributes.

Identify Community Dynamics - Examining community dynamics assists in identifying the various formal and informal relationships in the community. Community dynamics describe how various community members and organizations interact with each other. Dynamics include ownership and involvement potential, the current level of collaboration, and community business, health care, social, and government relationships. Understanding these forces is critical to moving forward in the project.

Establish a Shared Vision - A shared vision of health for the future should reflect the ideal health status and quality-of-life the community hopes to achieve as a result of improving community health. This vision should help the community determine the direction and extent of the journey to improve the health of its citizens. Having a vision for the future provides a framework for community stakeholders to proactively identify and address key community health issues.

Refine Stakeholder Roles / Responsibilities - The initial stakeholder roles and responsibilities developed in Manual 1 are refined to reflect specific day-to-day activities and team functions. This enables stakeholders to focus on value added tasks, and increase efficiency and effectiveness.

Develop Resource Coordination Strategy This strategy enables the coordination and utilization of resources. Resource limitations require close monitoring and it is crucial to effectively manage resource consumption and keep the team informed of resource availability.

MANUAL 3: ASSESSING COMMUNITY HEALTH

Manual 3 describes a recommended approach for assessing community health and should help the community identify its key health issues. Community health data from a variety of sources is examined in order to develop a list of key community health issues. The five key segments of Manual 3 are described below:

Review State and Additional Data - An approach to examine state data and identify data gaps is illustrated. Based on the community's vision developed in Manual 2, additional data is obtained, reviewed, and analyzed. A variety of indicators including demographic, socioeconomic, morbidity, mortality, health behaviors, and quality-of-life are analyzed. The data is organized by age group, gender, and race/ethnicity. In addition, an approach for comparing state and national data and trends are identified. This is a review of secondary data, or data that has been previously collected and compiled.

Conduct Community Survey - Information should be obtained directly from the community to supplement secondary data analysis. This primary data, or community data collected specifically for this project, should be obtained from the community at-large as well as community providers and health professionals. A sample community survey and provider questionnaire is included in Manual 3. It is critical that public opinion be obtained and incorporated throughout the community health assessment.

Inventory Community Resources - Developing an inventory of community resources provides a list of physical assets, existing programs, as well as community groups, agencies and other services available to improve community health status. The inventory may also identify additional external resources available for the project. Allocating scarce resources to focus on specific key health issues can increase the effectiveness of intervention efforts.

Consolidate Collected Information - An overall data summary is created using the summary reports generated in the previous three segments. The consolidation incorporates data findings, facilitates the review of collected information, and enables identification of key health issues.

Identify Key Health Issues - Key health issues are identified by examining state, additional, survey, and community resource inventory data. The list of key health issues developed in this segment provides the basis for prioritizing community health issues and selecting initial health issues to address.

MANUAL 4: PRIORITIZING COMMUNITY HEALTH ISSUES

Manual 4 describes a recommended approach for prioritizing community health issues. Prioritizing key health issues should enable the community to identify the initial health issues to target. Given that communities may have limited resources to address community health status, it is necessary to make choices regarding which issues to initially address. The five key segments of Manual 4 are described below:

Identify Key Underlying Factors - An approach for identifying and examining the underlying causes leading to the death and/or disease for key health issues is given. Included is a risk indicator model to analyze each health issue and determine the "root" of the problem. Interventions directed toward these root-causes should be more effective. This process reduces, consolidates, and strengthens the key health issue list.

Tailor Prioritization Criteria - Sample prioritization criteria are reviewed and modified based on specific community input. The selection of the prioritization criteria should reflect shared community values and the vision developed in Manual 2. Associated weights reflecting the relative importance of each criteria are also considered by the stakeholder team. A uniform set of criteria enables each key health issue to be evaluated and compared.

Prioritize Health Issues - It is important that the prioritization of health issues is performed using a systematic process. In this manual, a decision tool is included using a modified criteria weighting method. This simple mathematical process applies the set of prioritization criteria to each health issue to generate a comparative value and an ordered list of health issues is identified.

Determine Initial Health Issues - Initial health issue(s) are selected from the prioritized list. Given limited resources of most communities, only a single or a small number of health issues should be selected for initial intervention. This segment provides a qualitative, intuitive, discussion oriented decision process to determine initial health issues. This process considers available community resources and the nature of the key health issue.

Establish Goals/Objectives for Initial Health Issues - Goals and objectives are identified for each initial health issue. These goals and objectives should be achieved through specific intervention strategies which are discussed in Manual 5.

MANUAL 5: DEVELOPING AND IMPLEMENTING A COMMUNITY HEALTH STRATEGY

Manual 5 describes a recommended approach for developing and implementing a community health strategy. This strategy enables the community to actively improve its health status and measure its progress over time. The five key segments Manual 5 are described below:

Develop Mobilization Strategy - Developing and executing an effective mobilization strategy is a key step of the project. A well-designed plan for taking action on the identified health issues is essential to improving the health of the community. Information on how to obtain health issue material is included.

Develop Communication Strategy - The objective of the communication strategy is to establish a plan for effective, ongoing communication between and among the stakeholder team and community. Improvement in community health cannot occur without an a coordinated communication strategy. The strategy provides the framework for communicating the vision, announcing health initiatives, publicizing implementation plans, and communicating progress. Recommended methods and media for communicating regular, useful, and timely information to targeted audiences is described in detail, along with tools to help develop and tailor a communication strategy to a community's specific needs.

Sustain Coalition - Sustaining a coalition is a challenge as it involves developing a long-term strategy of continuous public recognition of individuals and groups, as well as securing and maintaining individual involvement.

Implement Overall Strategy - The overall implementation strategy is defined and an action plan for health for specific issues created. In addition, project monitoring and tracking mechanisms are established, and the rollout of the overall strategy is initiated.

Ensure Continued Success - An approach for evaluating the effectiveness of the community health improvement project is described. It is important for the coalition to consider how it determines the effectiveness of both its operations and community efforts. An environment conducive to continuous quality improvement should be developed. The coalition should ensure that project strategies are responsive, flexible and adaptable to unforeseen future conditions.

End Notes

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