Healthy

New Jersey

2010

A HEALTH AGENDA FOR THE FIRST
DECADE OF THE NEW MILLENNIUM

Volume II
   Preventing And Reducing Major Diseases
   Strengthening Public Health Capacity
   Appendices

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From 1985 to 1998 the age-adjusted death rate in New Jersey from coronary heart disease fell by 43.0 percent, mirroring the decline nationally. The decrease in death rates occurred for minorities as well, although gaps still persist. Moreover, heart disease remains the leading cause of death in the United States as a whole and in New Jersey, where it accounted for over 23,000 deaths in 1998, 32.4 percent of all deaths. It is estimated that nationally one in five people has some form of cardiovascular disease including coronary heart disease. Coronary artery disease is the most common form of heart disease and remains the number one cause of death for both men and women. This type of heart disease is caused by a narrowing of the coronary arteries that supply blood to the heart.

Cerebrovascular disease, or stroke is the third leading cause of death not only for the nation, but in New Jersey. A stroke occurs when blood vessels carrying oxygen and nutrients to the brain burst or become clogged by a blood clot or some other particle. It is estimated that half of the 500,000 new stroke cases per year in the United States could be prevented with adequate control of hypertension, the major cause of stroke.[1]

In New Jersey mortality due to stroke or cerebrovascular disease has also declined steadily since 1985, although not as quickly as for coronary heart disease. Moreover, the gaps between the total population and minorities are larger for stroke. Despite the progress made, there is room for even more improvement. In particular, closing the gap between minorities and the total population is essential.

The year 2010 objectives measure not only mortality from coronary heart disease and stroke, but also behaviors related to modifiable risk factors.

2010 Objectives

1a. Objective: Reduce the age-adjusted death rate from coronary heart disease per 100,000 standard population to **71.8**.

Populations	1998 Baseline Data	Target/Preferred 2010 Endpoint	Percent Change
Total age-adjusted	92.6	71.8	-22.5
White age-adjusted	92.2	71.8	-22.1
Black age-adjusted	109.1	71.8	-34.2
Asian/Pacific Islander age-adjusted	31.6	DNA	
Hispanic age-adjusted	DSU		

DSU = Data are statistically unreliable. DNA = Data have not been analyzed.
Source: New Jersey Department of Health and Senior Services, Center for Health Statistics

Except for a slight increase in 1994, the age-adjusted death rate from coronary heart disease among the total population has declined steadily since 1985, to the point where the 1996 rate represents a more than forty percent reduction in the death rate due to this cause. The 2010 objective is based on continuation of this trend.

1b. Objective: Reduce the death rate from coronary heart disease among persons 45 through 64 years of age per 100,000 population to **92.3.**

Populations	1998 Baseline Data	Target/Preferred 2010 Endpoint	Percent Change
Total	109.6	92.3	-15.8
White	105.0	92.3	-12.1
Black	166.8	92.3	-44.7
Asian/Pacific Islander	46.8	DNA	
Hispanic	DSU		

DSU = Data are statistically unreliable. DNA = Data have not been analyzed.
Source: New Jersey Department of Health and Senior Services, Center for Health Statistics

The pattern of decline in the death rate among the total population aged 45 through 64 is similar but even more dramatic than the age-adjusted decline for the total population, with a 57.0 percent reduction in the death rate for the total population in this age bracket between 1985 and 1998. Death rates for blacks from coronary heart disease are considerably higher than for whites in this age group. Targets have been set to eliminate this disparity in death rates by 2010.

1c. Objective: Reduce the death rate from coronary heart disease among persons 65 years of age and over per 100,000 population to **1,044.5.**

Populations	1998 Baseline Data	Target/Preferred 2010 Endpoint	Percent Change
Total	1,438.6	1,044.5	-27.4
White	1,490.7	1,044.5	-29.9
Black	1,228.4	1,044.5	-15.0
Asian/Pacific Islander	352.2	DNA	
Hispanic	DSU		

DSU = Data are statistically unreliable. DNA = Data have not been analyzed.
Source: New Jersey Department of Health and Senior Services, Center for Health Statistics

Coronary heart disease death rates among those aged 65 and over are approximately ten times higher than those for 45 through 64 year olds. Death rates for whites are higher than rates for blacks in the elderly population. Targets have been set to eliminate the racial disparity.

2a.   Objective: Reduce the age-adjusted death rate from cerebrovascular diseases per 100,000 standard population to **17.0.**

Populations	1998 Baseline Data	Target/Preferred 2010 Endpoint	Percent Change
Total age-adjusted	20.9	17.0	-18.7
White age-adjusted	19.2	17.0	-11.5
Black age-adjusted	33.8	17.0	-49.7
Asian/Pacific Islander age-adjusted	15.6	DNA	
Hispanic age-adjusted	DSU		

DSU = Data are statistically unreliable. DNA = Data have not been analyzed.
Source: New Jersey Department of Health and Senior Services, Center for Health Statistics

2b.   Objective: Reduce the death rate from cerebrovascular diseases among persons 45 through 64 years of age per 100,000 population to **19.0.**

Populations	1998 Baseline Data	Target/Preferred 2010 Endpoint	Percent Change
Total	24.2	19.0	-21.5
White	20.0	19.0	-5.0
Black	53.2	19.0	-64.3
Asian/Pacific Islander	20.2	DNA	
Hispanic	DSU		

DSU = Data are statistically unreliable. DNA = Data have not been analyzed.
Source: New Jersey Department of Health and Senior Services, Center for Health Statistics

2c.   Objective: Reduce the death rate from cerebrovascular diseases among persons 65 years of age and over per 100,000 population to **300.0.**

Populations	1998 Baseline Data	Target/Preferred 2010 Endpoint	Percent Change
Total	321.4	300.0	-6.7
White	321.9	300.0	-6.8
Black	359.0	300.0	-16.4
Asian/Pacific Islander	170.5	DNA	
Hispanic	DSU		

DSU = Data are statistically unreliable. DNA = Data have not been analyzed.
Source: New Jersey Department of Health and Senior Services, Center for Health Statistics

In all populations considered, the death rates from cerebrovascular disease, or stroke, have declined between 1985 and 1998, but have exhibited considerable year to year fluctuations. The rates for blacks are consistently higher than those for the total and white populations but the differences are most pronounced in the 45 through 64 year age group. For each population, targets have been set to eliminate the disparity in rates between whites and blacks.

3. **Objective:** Increase the percentage of persons aged 18 and over who have had their blood cholesterol checked by a health professional within the past five years to **82.0 percent.**

Populations	1999 Baseline Data	Target	Percent Change	Preferred 2010 Endpoint	Percent Change
Total	75.5	82.0	+8.6	90.0	+19.2
White non-Hispanic	79.4	82.0	+3.3	90.0	+13.4
Black non-Hispanic	69.1*	82.0	+18.7	90.0	+30.2
Asian/Pacific Islander	DSU				
Hispanic	64.9*	82.0	+26.3	90.0	+38.7

DSU = Data are statistically unreliable.
*Estimate has a relatively large standard error of more than two percent.
Source: New Jersey Department of Health and Senior Services, Center for Health Statistics, Behavioral Risk Factor Surveillance System

Control of blood cholesterol levels is an essential component of preventing and managing coronary heart disease. Multi-year BRFSS data indicate that the percentage of New Jersey adults who have gotten their blood cholesterol checked within the past five years has varied between sixty-eight and seventy-six percent. The year to year fluctuations reflected in the data are largely due to small sample sizes. It appears that the Hispanic population may not be getting blood cholesterol checks at the same frequency as other groups. The targets are set to eliminate this and other disparities.

Discussion

Cardiovascular diseases remain the leading cause of death for New Jersey residents, despite the considerable decline in the mortality rate for heart disease. The most frequently occurring forms of cardiovascular disease are coronary artery disease, which occurs when there is a narrowing in the coronary arteries and may be an underlying cause for a heart attack, and cerebrovascular disease, also known as stroke.

It is estimated that annually about 1.1 million people in the United States experience a heart attack and nearly 500,000 Americans die from coronary heart disease. Coronary heart disease, also known as ischemic heart disease, causes angina, a type of chest pain.

Coronary artery disease develops over time, and results from narrowing of the blood vessels due to fatty deposits. Frequently, this narrowing is due to a thickening of the inside walls of the coronary arteries and is known as atherosclerosis. Atherosclerosis usually develops when an individual has chronic high levels of cholesterol, a fat-like substance in the blood. Many factors influence not only whether a person develops coronary artery disease, but also how rapidly the disease progresses. There are both modifiable and non-modifable characteristics that increase the risk of heart disease and stroke. Non-modifable risk factors include age, gender, and family history. Modifiable risk

factors are, by definition, open to change through adoption of healthy behaviors and/or medical treatment. For cardiovascular disease, modifiable risk factors include high blood pressure, high blood cholesterol, weight, cigarette smoking, and stress.

Progress has been made in reducing cardiovascular death rates and is attributable to changes in behaviors as well as advances in medical and surgical treatment of the disease. Behavioral changes include reduction in smoking by adults, along with high levels of routine monitoring of blood pressure and cholesterol. There is also increased awareness of the importance of a low fat diet and fitness, although actual changes in behavior have been slower to occur. Medical advances include a wider range of preventive drug therapies for control of blood pressure and cholesterol, as well as other drug therapies to control the disease, such as blood thinning agents, beta blockers, and, in response to acute episodes, thrombolytic agents. Surgical interventions, such as angioplasty and coronary artery bypass graft surgery (CABG), are also widely used to relieve ischemic symptoms.

Continued reduction in the cardiovascular death rates is a major priority for the State. NJDHSS has a cardiovascular health advisory panel, consisting of experts in the field as well as consumer representatives, to assist it in promoting cardiovascular health in New Jersey. Initiatives undertaken with the advice of this panel have included an expansion of the number of low-risk diagnostic cardiac catherization laboratories and cardiac surgery centers in the State, to broaden access to such services; statewide symposia on cardiovascular health prevention and access issues; and a report card on CABG mortality rates.

Starting in 1997, NJDHSS publishes reports comparing patient mortality rates for individual hospitals and surgeons performing CABG surgery. To date, three reports have been released. These reports enable consumers to compare hospitals and surgeons to help them make decisions regarding their care. Perhaps more important has been the impact of these reports on the hospitals that perform cardiac surgery. They have stimulated aggressive quality improvement efforts on the part of these hospitals. From 1994 to 1998, the state has shown nearly a 40 percent improvement in overall mortality rates for patients undergoing bypass surgery.

NJDHSS has used its Certificate of Need (CN) authority to link expansion of the number of cardiac surgery centers in New Jersey to demonstrated efforts to improve access to minorities. NJDHSS also used its CN authority in other ways to expand minority access. The Inner City Demonstration project pairs an inner city hospital that offers cardiac surgery services with a suburban hospital that wanted to offer the service. The suburban hospital is required to give strong financial support as well as share medical and surgical expertise with the inner city hospital as a condition of service expansion. It also has to assure maintenance of the inner city hospital's annual cardiac surgery volumes. Finally, NJDHSS has commissioned a three-year cardiac services study, scheduled for completion in 2001, by the University of Medicine and Dentistry - Robert Wood Johnson Medical School. The study will describe minority populations in the service area of each hospital offering major cardiovascular services, and will assess minority access to services in each area.

Additional research is needed to accurately assess the impact of cardiovascular disease (CVD) on the Asian or Pacific Islander population in New Jersey and develop reliable targets for the heart disease objectives. National research provides evidence that CVD is a leading cause of death for the Asian or Pacific Islander population. Barriers and limitations to services includes low levels of CVD, awareness, lack of health insurance, lack of culturally and linguistically appropriate services, limited availability and accessibility of services and limited availability of AAPI health research.[2]

NJDHSS has also facilitated the use of portable defibrillators by first responders to emergencies, which has improved the survival rate of people having a heart attack. Defibrillators are devices that use electrical shock to restart and stabilize a heart beat. In 1997, former Governor Whitman signed a

law that facilitates access to automatic defibrillators in businesses as well as public areas, such as train stations. These defibrillators can be safely used by non-technical persons.   Through a special appropriation, police, fire and first aid squads in 146 New Jersey towns received 156 defibrillators and training materials.

There are currently more than three million Americans who have some form of disability resulting from a stroke. Studies have shown that for some stroke victims, timely therapy, such as thrombolytic agents, can reduce the extent of disability.[3] NJDHSS is continuing to work with experts in the field to assess the delivery of emergency services to stroke victims and improve timely access to diagnostic services.

RELATED OBJECTIVES

3C Objective 3	-	Reduce the percentage of middle school students who have used cigarettes in the past 30 days.
3C Objective 4	-	Reduce the percentage of high school students who say they are currently smoking.
3D Objective 1	-	Increase the percentage of persons aged 18 and over eating at least five daily servings of fruits and vegetables including legumes.
3D Objective 2	-	Reduce the percentage of persons aged 18 and over who are overweight but not obese.
3D Objective 3	-	Reduce the percentage of persons aged 18 and over who are obese.
3D Objective 4	-	Increase the percentage of persons aged 18 and over who participated in frequent, leisure time physical activity during the past month.
4B Objective 4	-	Increase the percentage of persons 18 and over with diagnosed diabetes who have high been told they have blood pressure and are currently taking medication for high blood pressure.
4B Objective 7	-	Decrease the incidence of end-stage renal disease due to diabetes in persons aged 18 and over with diagnosed diabetes.
4F Objective 2	-	Reduce the estimated age-adjusted tobacco-related death rate.
4F Objective 5	-	Reduce the prevalence of cigarette smoking among the population aged 18 and over.

ENDNOTES

[1] Gorelick, P.B. Stroke Prevention: An Opportunity for Efficient Utilization of Health Care Resources During the Coming Decade. *Stroke*, 25:220-224, 1994.

[2] Asian & Pacific Islander Health Forum. *Eliminating Racial and Ethnic Disparities in Cardiovascular Health*: Improving the Cardiovascular Health of Asian American and Pacific Islander Populations in the United States. July, 1999. <http://www.apiahf.org/publications/cvd1.html>.

[3] National Institute of Neurological Disorders and Stroke Web site, <http:www.ninds.nih.gov>

In 1998, diabetes was the sixth leading cause of death among New Jerseyans. Diabetes is a disease in which the body does not produce insulin (type 1) or properly use insulin (type 2). Insulin is a hormone produced by the body that helps the cells of the body process glucose (sugar). The body cannot survive if it does not have any insulin. If it has insufficient insulin or cannot use insulin properly, sugar builds up in the bloodstream. High blood sugar levels can lead to a number of serious health problems.

In 1996 through 1999, 313,300 New Jerseyans aged 20 and over reported they had had a diagnosis of diabetes. It is estimated that an additional 161,400 people had diabetes but were unaware of it. Individuals are at higher risk for diabetes if they have a family history of diabetes; are overweight; are women with a history of gestational diabetes; are women who had a baby weighing more than nine pounds at birth; are members of certain minority populations, i.e., blacks, Hispanics, Native Americans and Asians; have high blood pressure or high cholesterol; are 45 years of age or older; or have been previously identified as having an impaired fasting glucose tolerance test or an impaired fasting glucose. The rate of diabetes during pregnancy, either gestational or pre-existing, is more than twice as high among Asian or Pacific Islander mothers as among black and white women who give birth.

In New Jersey an estimated 5.1 percent of white non-Hispanic persons aged 20 and over have been diagnosed with diabetes, in comparison to 9.5 percent of black non-Hispanics. In the population under 20 years of age about 0.2 percent have been diagnosed, compared to 14.1 percent of those aged 65 and over. The percentage of males diagnosed with diabetes was similar to the percentage of diagnosed females, 5.5 and 5.3, respectively. Prevalence data for Hispanics indicate an estimated rate of 4.8 percent, although this rate may be understated. Data from national services suggest that the prevalence of diabetes among Hispanics is much greater than among whites.

The cost of diabetes in New Jersey is very high. According to the Centers for Disease Control and Prevention, the direct cost (medical care) and indirect cost (lost productivity and premature mortality) of diabetes in New Jersey was estimated at about $4.1 billion in 1997. Per capita health expenditures for people with diabetes are about four times higher than those for people without diabetes.

Although many of the risk factors for developing diabetes are not modifiable, much of the burden of having diabetes is preventable. People with diabetes are at higher risk for heart disease, stroke, foot ulcers and lower-extremity amputations, eye disease, kidney disease, nerve disease and dental disease. However, proper nutrition, physical activity, avoidance of smoking, foot care, coupled with early detection and proper treatment of diabetes, as well as timely screening for early manifestations of complications can help prevent or delay more severe complications.

Year 2010 objectives focus on effective screening for and management of diabetes.

2010 Objectives

1. **Objective:** Reduce the age-adjusted death rate from diabetes per 100,000 standard population to:

   10.0   for the total population, whites, males and females
   14.0   for blacks
   ** 7.0   for Hispanics**

Populations	1998 Baseline Data	Target	Percent Change	Preferred 2010 Endpoint	Percent Change
Total age-adjusted	15.2	10.0	-34.2	10.0	-34.2
White age-adjusted	13.5	10.0	-25.9	10.0	-25.9
Black age-adjusted	30.8	14.0	-54.5	10.0	-67.5
Asian/Pacific Islander age-adjusted	DSU				
Hispanic age-adjusted	8.3	7.0	-15.7	7.0	-15.7
Male age-adjusted	18.0	10.0	-44.4	10.0	-44.4
Female age-adjusted	13.0	10.0	-23.1	10.0	-23.1

DSU = Data are statistically unreliable.
Source: New Jersey Department of Health and Senior Services, Center for Health Statistics

The diabetes death rate among New Jerseyans has generally increased over the past ten years, but caution must be exercised in interpreting the trend. The revised death certificate format implemented in 1989 added instructions on certification of the cause of death, as well as additional space for listing of causes. These changes are probably at least partially responsible for the large increase in the designation of diabetes as the underlying cause of death between 1988 and 1989. The number of diagnosed cases of diabetes has been increasing at a steady rate nationwide, particularly within minority populations. However, the efficacy of prevention measures to reduce the complications of diabetes has been documented, and the life span of persons with diabetes can be extended. Targets have been set to eliminate disparities and to reflect expanded use of measures to prevent complications of diabetes.

2. **Objective:** Reduce the age-adjusted death rate from cardiovascular disease in people with diabetes per 100,000 standard population to:

>   8.5   **for the total population**
>   8.5   **for whites**
> 10.0   **for blacks**
>   5.0   **for Hispanics**
>   8.5   **for males**
>   8.5   **for females**

Populations	1998 Baseline Data	Target	Percent Change	Preferred 2010 Endpoint	Percent Change
Total age-adjusted	12.9	8.5	-34.1	8.5	-34.1
White age-adjusted	11.9	8.5	-28.6	8.5	-28.6
Black age-adjusted	22.0	10.0	-54.5	8.5	-61.4
Asian/Pacific Islander age-adjusted	DSU				
Hispanic age-adjusted	6.1	5.0	-18.0	5.0	-18.0
Male age-adjusted	15.9	8.5	-46.5	8.5	-46.5
Female age-adjusted	10.4	8.5	-18.3	8.5	-18.3

DSU = Data are statistically unreliable.
Source: New Jersey Department of Health and Senior Services, Center for Health Statistics

The death rate from cardiovascular disease is considerably higher in persons with diabetes, especially among blacks and males. Research has shown, however, that these deaths can be prevented and certainly delayed with adherence to standard diabetes management measures. The Hispanic death rate is considerably lower than the total rate, although this may be at least partially the result of under-reporting of Hispanic ethnicity on the death certificates. Other than for this subgroup, targets for rates have been set lower than the lowest existing age-adjusted death rate.

3. **Objective (Developmental):** Increase the percentage of persons 18 and over who have been screened for diabetes during the past three years to _____ **percent.**

Populations	2001 Baseline Data	Target	Percent Changes	Preferred 2010 Endpoint	Percent Change
White non-Hispanic 45+					
Black non-Hispanic 18+					
Asian/Pacific Islander					
Hispanic 18+					
BMI ≥ 27.0					
Persons 65+					

Source: New Jersey Department of Health and Senior Services, Center for Health Statistics, Behavioral Risk Factor Surveillance System

Nationally, it is estimated that thirty-four percent of persons with diabetes are unaware that they have the disease. Diagnosing diabetes is critical to implementing the measures that can prevent the serious complications that can result from diabetes. Questions regarding screening for diabetes will be incorporated into the 2002 BRFSS survey.

4. **Objective (Developmental):** Increase the percentage of persons 18 and over with diagnosed diabetes who have been told they have high blood pressure and are currently taking medication for high blood pressure to _____ **percent.**

Populations	2001 Baseline Data	Target	Percent Changes	Preferred 2010 Endpoint	Percent Change
Total					
White non-Hispanic					
Black non-Hispanic					
Asian/Pacific Islander					
Hispanic					

Source: New Jersey Department of Health and Senior Services, Center for Health Statistics

Control of hypertension is known to be critical to management of diabetes and prevention of serious, life-threatening complications. Estimates of hypertension control based on self-reports are useful for measurement of the effectiveness of diabetes management programs; however, respondents tend to overstate their degree of hypertension control. As a proxy measure for control of high blood pressure, the extent to which respondents report taking medication for diagnosed high blood pressure will be monitored.

5. **Objective:** Increase the percentage of persons 18 and over with diagnosed diabetes who have had a dilated eye exam within the past year to **90 percent.**

Populations	1997-1999 Baseline Data	Target	Percent Change	Preferred 2010 Endpoint	Percent Change
Self report:					
Total	74.3*	90.0	+21.1	100.0	+34.6
White non-Hispanic	78.0*	90.0	+15.4	100.0	+28.2
Black non-Hispanic	63.6**	90.0	+41.5	100.0	+57.2
Asian/Pacific Islander	DSU				
Hispanic	60.5**	90.0	+48.8	100.0	+65.3
Male	73.7*	90.0	+22.1	100.0	+35.7
Female	74.8*	90.0	+20.3	100.0	+33.7
MCO records:					
Enrolled persons with diabetes (1999)	43.3	90.0	+107.9	100.0	+130.9

DSU = Data are statistically unreliable.
*Estimate has a relatively large standard error of more than two percent.
**Estimate has a relatively large standard error of more than 2.5 percent.

One of the serious complications associated with diabetes is the development of small vessel abnormalities (retinopathy) in the eyes. These abnormalities can lead to blindness. Yearly ophthalmic eye examinations with dilation of the pupils can serve to prevent blindness by indicating a need for appropriate treatment and prevention strategies.

6.   **Objective:** Reduce the incidence of lower extremity amputations per 1,000 persons with diagnosed diabetes to **6.0.**

Populations	1998 Baseline Data	Target/Preferred 2010 Endpoint	Percent Change
Total	10.3	6.0	-41.7
White	10.3	6.0	-41.7
Black	10.4	6.0	-42.3
Asian/Pacific Islander	DSU		
Hispanic	6.9	6.0	-13.0
Male	12.6	6.0	-52.4
Female	8.0	6.0	-25.0

DSU = Data are statistically unreliable.

A major cause of morbidity, disability and economic costs, both direct and indirect, in persons with diabetes is foot ulcers and amputations. In 1998 there were 3,201 amputations among New Jerseyans with diabetes. Evidence exists that foot complications, including amputations, can be reduced through regular foot examinations by a health professional. The New Jersey Diabetes Council's diabetes performance standards recommend a foot exam at each routine visit to a primary care provider for diabetes follow-up. Other prevention measures, such as maintaining normal blood glucose levels and smoking cessation, also reduce the risk of vascular disease complications leading to foot ulcers and amputations. Rates of amputations among males with diabetes are particularly high compared to the rate for the total population. Targets are set to reflect expanded compliance with the Diabetes Council's performance standards, as well as to eliminate racial and gender gaps.

7. **Objective:** Decrease the incidence of end-stage renal disease due to diabetes per 1,000 persons aged 18 and over with diagnosed diabetes to:

> **3.8 for the total population with diabetes**
> **3.4 for non-Hispanic whites with diabetes**
> **5.6 for non-Hispanic blacks with diabetes**
> **5.9 for Hispanics with diabetes**
> **3.8 for males with diabetes**
> **3.8 for females with diabetes**

Populations	1999 Baseline Data	Target	Percent Change	Preferred 2010 Endpoint	Percent Change
Total	5.4	3.8	-29.6	3.4	-37.0
White non-Hispanic	3.8	3.4	-10.5	3.4	-10.5
Black non-Hispanic	10.5	5.6	-46.7	3.4	-67.6
Asian/Pacific Islander	N/A				
Hispanic	7.3	5.9	-19.2	3.4	-53.4
Male	5.8	3.8	-34.5	3.4	-41.4
Female	5.0	3.8	-24.0	3.4	-32.0

N/A = Not Available
Source: Trans-Atlantic Renal Council and the New Jersey Department of Health and Senior Services, Division of Family Health Services

Diabetes is the leading cause of end-stage renal disease (ESRD), accounting for about forty percent of new cases. Since end-stage renal disease is highly preventable and treatable when kidney disease is diagnosed early, this objective provides an important indicator of the quality of diabetes care being provided to New Jerseyans. Rates of end-stage renal disease due to diabetes are dramatically higher in blacks and Hispanics. Hypertension is the primary disease associated with ESRD for 36.8 percent of blacks compared to 26.3 percent of whites. Targets are set to reduce the gaps in the rates by race and ethnicity, as well as the overall incidence of end-stage renal disease.

8. **Objective:** Increase the percentage of persons 18 and over with diagnosed diabetes who reported having a glycosylated hemoglobin measurement at least once a year to **50.0 percent.**

Populations	1997-1999 Baseline Data	Target/Preferred 2010 Endpoint	Percent Change
Total	18.0*	50.0	+177.8
White non-Hispanic	21.1*	50.0	+137.0
Black non-Hispanic	4.2*	50.0	+1090.5
Asian/Pacific Islander	N/A		
Hispanic	19.0**	50.0	+163.2
Male	18.6*	50.0	+168.8
Female	17.6*	50.0	+184.1

N/A = Not Available
*Estimate has a relatively large standard error of more than two percent.
**Estimate has a relatively large standard error of more than 2.5 percent.
Source: New Jersey Department of Health and Senior Services, Center for Health Statistics, Behavioral Risk Factor Surveillance System

Glycosylated hemoglobin measurement reflects the control of blood glucose levels in a diabetes patient over the previous two to three months, as opposed to blood glucose testing, which provides a measure of blood glucose levels only at the time the test is done. Glycosylated hemoglobin measurement has been shown to predict many of the chronic complications of diabetes. The low percentages of glycosylated hemoglobin screening reported by respondents to the BRFSS survey may reflect an actual low level of use of this screening measure, or a failure by respondents to recognize the name of this measure and to know whether their physician has used it.

Discussion

Diabetes, with its acute and chronic complications, can lead to very high rates of health care resource utilization, poor quality of life, increased work and school absenteeism, and increased mortality at younger ages for people with diabetes. These adverse outcomes can be prevented, however, with improved diabetes medical management, expanded patient education and self-management, and appropriate screening and treatment of diabetes-related complications.

There are two predominant types of diabetes: **type 1 and type 2.**

Type 1 Diabetes: (formerly called insulin-dependent diabetes mellitus [IDDM] or juvenile diabetes)
In this type of diabetes, the cells in the pancreas that produce insulin are destroyed by the immune system and no longer secrete insulin. It is characterized by a total lack of insulin. The patient needs daily insulin injections to live. About five to ten percent of people with diabetes have Type 1.

Type 2 Diabetes: (formerly called non-insulin-dependent diabetes mellitus [NIDDM] or adult-onset diabetes*).* Between ninety and ninety-five percent of people with diabetes have Type 2. This type usually occurs in adults over age forty, but it can appear at a much earlier age, even early adolescence. About eighty percent of people diagnosed with Type 2 diabetes are overweight. The pancreas produces insulin, but the body is unable to effectively use the insulin. Insulin resistance is common and is frequently seen in combination with hyper-insulinemia (large amounts of insulin present in the bloodstream).

Diabetes is becoming more common. Because the population of New Jersey and the country is growing older, one might expect some increase in the prevalence of diabetes. But the rate of increase has outstripped the aging of the population, suggesting other factors are at work. One factor is the increasing prevalence of overweight and obesity in the population.

Much of the burden of diabetes is preventable. Traditional methods to prevent the onset of Type 2 diabetes include weight control, regular exercise, healthy eating and smoking cessation. For those people who have diabetes, the disease can be effectively managed to prevent or delay serious health complications. However, strategies to manage diabetes are often under-used.

For example, Type 2 diabetes is often not diagnosed early enough. Many people with undiagnosed Type 2 diabetes confuse their subtle symptoms with the aging process and often fail to see their physicians. Regrettably, such people may not learn they have diabetes until after they have suffered complications. The American Diabetes Association recommends that persons be screened for Type 2 diabetes every three years, beginning at age 45. Members of high-risk groups should be screened

more frequently. These include individuals who have a family history of diabetes, are overweight, have high blood pressure or high cholesterol, are women with a history of gestational diabetes or who had a baby weighing more than nine pounds at birth, and those belonging to a particular race or ethnic group such as black, Hispanic, Native American, and Asian or Pacific Islander.

Medical treatment for Type 1 diabetes is fairly straightforward: insulin must be injected since the pancreas does not secrete it. Treatment for Type 2 diabetes is not so straightforward, and may involve a variety of medications. Over time, insulin injections may also be required. Whatever the treatment regimen, persons with diabetes must still control their blood pressure and their serum cholesterol and glucose levels, manage their diets, engage in physical activity, and not use tobacco products in order to best control the disease. Responsibility for managing diabetes on a daily basis lies primarily with the patient. To achieve effective self-management of this disease and avoid or delay the complications associated with it, individuals must learn multiple skills and make important lifestyle changes.

Another key component of effective diabetes management is screening for diabetes-related complications. Periodic and regular screening for early signs of complications is vital to the long-term health and well being of people with diabetes. Screening methods include annual foot and dilated eye exams, to prevent complications that can lead to amputation and blindness. Through such regular screenings complications can be identified at a point where treatment and other interventions, such as lifestyle changes, can be effective in preventing serious adverse health consequences.

The Behavioral Risk Factor Surveillance System (BRFSS) survey provides some insights that suggest cause for concern about how well diabetes is being managed in New Jersey. Survey results for the years 1995 through 1997 show that only 68.9 percent of persons diagnosed with diabetes reported seeing a health care professional at the frequency recommended by the New Jersey Diabetes Council (i.e. one or more times in the past year). Of those reporting fewer than two visits per year, 13.6 percent indicated that they had not seen a health care professional at all during the previous year. An additional 9.6 percent of surveyed persons with diabetes reported that they did not know how many times they had seen a health care professional in the past year. Females with diabetes reported a higher frequency of health care contacts than their male counterparts.

Screening for complications is also not being utilized fully. The BRFSS surveys of 1995 through 1997 show that about fifteen percent of respondents did not have their feet checked by a health care professional in the previous year. The 1997 through 1999 surveys showed that only about three fourths of people with diabetes reported having a dilated eye exam in the previous year. Only about forty-four percent of respondents with diabetes reported self-monitoring of blood glucose on at least a daily basis, and only about sixteen percent of those surveyed indicated having one or more glycosylated hemoglobin tests in the previous year to measure blood glucose.

NJDHSS works to reduce the adverse impacts of diabetes through health care systems interventions, community-based outreach and education, as well as provision of preventive services to low-income, uninsured and underinsured persons with diabetes. NJDHSS has established a diabetes surveillance system designed to describe the burden of diabetes in New Jersey, as well as identify areas of further study. *The Burden of Diabetes in New Jersey: A Surveillance Report* discusses demographics, prevalence of diabetes, diabetes and pregnancy, diabetes and health care utilization, and diabetes mortality in New Jersey. In addition, the report identifies areas for further study and possible interventions. These include the increasing number of women with diabetes as a risk factor of pregnancy, particularly among high-risk minorities including Asian Indians, Chinese, Filipinos, American Indians and Hispanics; and the need for improved diabetes-related surveillance data for high risk minority groups.[1]

Between 1995 and 1999 NJDHSS conducted a Diabetes Managed Care Project to establish a model for integrating performance measures for care of people with diabetes into the policies and practices of managed care organizations and federally qualified health centers. The project was managed for NJDHSS by the University of Medicine and Dentistry of New Jersey (UMDNJ). The performance measures stressed compliance with the New Jersey Diabetes Council's recommended guidelines for frequency of physician visits, foot exams, eye exams, glycosylated hemoglobin tests, etc. Three managed care organizations and seven federally qualified health centers caring for almost 9,000 persons with diabetes were involved in the project. Evaluation of the effectiveness of this model of diabetes management will be forthcoming. UMDNJ subsequently was also selected as one of six sites for a national, CDC-funded project focusing on the management of diabetes by managed care organizations.

Since 1997, NJDHSS has published a "report card" on managed care plans throughout New Jersey. One of the key measures this report card focuses on is how well managed care plans screen adults with diabetes for eye disease. In 2000 the best performing healthcare plan had screened only fifty percent of enrollees with diabetes for eye disease in the previous year. The worst performer screened only twenty-five percent. The NJDHSS Commissioner challenged all managed care plans to raise their screening rate to at least sixty-one percent.

Through its Diabetes Outreach and Education System project, NJDHSS seeks to increase awareness of diabetes. High-risk groups, such as the elderly and certain racial and ethnic groups, are informed of their increased risk of diabetes in an effort to increase the screening for diabetes and avoidance of the complications of unmanaged diabetes. NJDHSS also promotes among primary care providers adherence to the New Jersey Diabetes Council's diabetes management guidelines. NJDHSS has also trained over 500 health care providers at sixty health care facilities in methods to reduce the risk of lower extremity amputation in persons with diabetes.

NJDHSS sponsors annual screening among low income, uninsured or under-insured high-risk persons with diabetes for undiagnosed retinal disease. Of the approximately 800 people screened each year under this program, over fifteen percent have been found to have retinal disease.

Other NJDHSS activities to reduce the burden of diabetes in New Jersey include disseminating a diabetes care video to over 400 nursing homes in the State; supporting a program for children with diabetes in the schools; increasing the numbers of persons with diabetes immunized for influenza and pneumonia; and supporting projects to reduce diabetes-related disparities in minority and elderly populations.

RELATED OBJECTIVES

3B Objective 19   -   Increase the percentage of fourth grade public school students who pass the comprehensive health and physical education portion of the Elementary School Proficiency Assessment (ESPA).

3C Objective 1   -   Increase the percentage of public school students who pass the comprehensive health and physical education portion of Grade Eight Proficiency Assessment (GEPA).

3C Objective 2   -   Increase the percentage of eleventh grade public school students who pass the comprehensive health and physical education portion of the High School Proficiency Assessment (HSPA).

3D Objective 2   -   Reduce the percentage of persons aged 18 and over who are overweight but not obese.

3D Objective 3   -   Reduce the percentage of persons aged 18 and over who are obese.

4F Objective 5   -   Reduce the prevalence of cigarette smoking among the population aged 18 and over.

ENDNOTE

[1] New Jersey Department of Health and Senior Services (NJDHSS). *The Burden of Diabetes in New Jersey. A Surveillance Report.* Trenton, NJ: NJDHSS, Diabetes Control Program, November, 1999.

Almost every American family has in some way felt the impact of cancer. At the beginning of the twentieth century, cancer was the eighth leading cause of death in the United States. Today it is the second most frequent cause of death. Current estimates indicate that cancer is responsible for one of every four deaths in the United States, second only to heart disease. According to the National Cancer Institute, the estimated national cost of cancer annually is $104 billion, including costs attributed to loss of productivity, medical care and mortality. In 1999, cancer was identified as the most important health care issue facing New Jersey in a survey of New Jersey residents.

Cancer is not one disease affecting one organ, but a complex of diseases characterized by uncontrolled abnormal cell growth. Each type of cancer has different causes, and therefore different risk factors as well as prevention strategies. Scientific understanding of the causes of cancer is growing rapidly. Although many unknowns remain, there is growing agreement on prevention and screening measures for many of the most common types of cancer.

The incidence rates for most cancers diagnosed among New Jersey residents have declined in recent years, but it remains the second leading cause of death. The most common types of cancer deaths — due to breast, colorectal, prostate and lung cancer — can, in many instances, be prevented through lifestyle changes and/or managed through early screening and treatment. This is also true for cervical cancer. For this reason, these types of cancer are a focus for year 2010 objectives. In addition, malignant melanoma, a largely preventable form of skin cancer linked to sun exposure, is a concern because the incidence has increased in recent years, contrary to the general decline for other types of cancer. Together these six types of cancer account for approximately sixty percent of all cancers diagnosed each year in New Jersey.

While many cancer interventions may take a long time to demonstrate an impact on cancer incidence or mortality rates, there are other indicators which can measure progress toward the goal of controlling cancer. For example, the impact of screening programs can be assessed by tracking the percentage of cancer cases diagnosed at an early stage of the disease. While screening will not reduce the number of cancers diagnosed, for many cancers early detection will reduce advanced morbidity, and eventually improve mortality rates. Therefore, the year 2010 objectives measure not only changes in mortality rates, but also changes in incidence rates, stage of disease at diagnosis, and use of screening services.

2010 Objectives

1. **Objective:** Reduce the age-adjusted death rate from female breast cancer per 100,000 female population to:

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17.0 for all females (age-adjusted)
17.0 for white females (age-adjusted)
23.3 for black females (age-adjusted)
47.3 for females 50-64
120.0 for females 65+

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Populations	1998 Baseline Data	Target	Percent Change	Preferred 2010 Endpoint	Percent Change
Total age-adjusted	24.7	17.0	-31.2	17.0	-31.2
White age-adjusted	24.7	17.0	-31.2	17.0	-31.2
Black age-adjusted	28.1	23.3	-17.1	17.0	-39.5
Asian/Pacific Islander age-adjusted	DSU				
Hispanic age-adjusted	DSU				
Females 50-64	56.2	47.3	-15.8	20.0	-64.4
Females 65+	143.7	120.0	-16.5	103.0	-28.3

DSU = Data are statistically unreliable.
Source: New Jersey Department of Health and Senior Services, Center for Health Statistics

During the past ten years, the age-adjusted death rate from female breast cancer has declined substantially. However, the decrease has been more dramatic in women aged 50 through 64 years than in women 65 and over. The death rate among women 65 and over is more than twice the rate among women in the younger group, 50 through 64. Black women experience a higher death rate from breast cancer than white women. Targets have been set to narrow the gap in breast cancer death rates by race, but more progress in surviving breast cancer is expected in younger women than in women 65 and over.

2. **Objective:** Increase the percentage of females aged 40 and over who received a clinical breast examination and a mammogram within the past two years to:

> **75.0 percent for all females 40+**
> **75.0 percent for non-Hispanic white females**
> **75.0 percent for non-Hispanic black females**
> **75.0 percent for Hispanic females**
> **85.0 percent for females 50-64**
> **75.0 percent for females 65+**
> **85.0 percent for MCO enrolled older females**

Populations	1997-1999 Baseline Data	Target	Percent Change	Preferred 2010 Endpoint	Percent Change
Total females 40+	65.0	75.0	+15.4	85.0	+30.8
White non-Hispanic females	66.2	75.0	+13.3	85.0	+28.4
Black non-Hispanic females	62.8*	75.0	+19.4	85.0	+35.4
Asian/Pacific Islander	DSU				
Hispanic females	56.7*	75.0	+32.3	85.0	+49.9
Females 50-64	70.9	85.0	+19.9	90.0	+26.9
Females 65+	60.4	75.0	+24.2	85.0	+40.7
MCO records Older enrolled females (1998-1999)	68.3	85.0	+24.5	90.0	+31.8

DSU = Data are statistically unreliable.
*Estimate has a relatively large standard error of more than two percent.
Source: New Jersey Department of Health and Senior Services, Center for Health Statistics, Behavioral Risk Factor Surveillance System

Mortality from breast cancer can be substantially reduced if the tumor is discovered at an early stage. Self-reports from BRFSS of the receipt of a mammogram and a clinical breast exam by New Jersey women aged 40 and over within the year prior to interview has increased in the past few years. BRFSS does not measure breast self-examination. Data show that black and Hispanic women aged 40 and over get mammograms and clinical breast exams at lower rates than white women, as do women aged 65 and over. Although survey response does not provide reliable state data, national data show that Asian or Pacific Islanders receive mammograms at a rate lower than any other racial or ethnic group. Targets are set to narrow the gaps by race and ethnicity as well as age.

3. **Objective:** Increase the percentage of female breast cancers diagnosed in early (in situ/local) stage of disease to **75.0 percent**.

Populations	1998 Baseline Data	Target	Percent Change	Preferred 2010 Endpoint	Percent Change
Total	65.9	75.0	+13.8	85.0	+29.0
White	66.7	75.0	+12.4	85.0	+27.4
Black	58.5	75.0	+28.2	85.0	+45.3
Asian/Pacific Islander	DSU				
Hispanic*	69.0	75.0	+8.7	85.0	+23.2
Females 65+	64.6	75.0	+16.1	85.0	+31.6

DSU = Data are statistically unreliable.
*1998 Hispanic data unavailable, using 1996 data.
Source: New Jersey Department of Health and Senior Services, Division of Epidemiology, Environmental and Occupational Health

Mortality rates from female breast cancer can be reduced by early diagnosis of local or in situ malignancy. Increased adherence to screening guidelines should increase early detection. Current New Jersey cancer registry data indicate that breast cancers in black women and women aged 65 and over are not being found as early as those in other women. Targets have been set to achieve a level of early diagnosis in seventy-five percent of all females diagnosed with breast cancer.

4. **Objective:** Reduce the age-adjusted death rate from cervical cancer per 100,000 standard population[1] to:

> **1.0**   **for all females (age-adjusted)**
> **1.0**   **for white females (age-adjusted)**
> **2.9**   **for black females (age-adjusted)**
> **5.0**   **for females 65+**

Populations	1998 Baseline Data	Target	Percent Change	Preferred 2010 Endpoint	Percent Change
Total age-adjusted	2.0	1.0	-50.0	0.5	-75.0
White age-adjusted	1.8	1.0	-44.4	0.5	-72.2
Black age-adjusted	3.7	2.9	-21.6	0.5	-86.5
Asian/Pacific Islander age-adjusted	DSU				
Hispanic age-adjusted	DSU				
Women 65+	7.8	5.0	-35.9	0.5	-93.6

DSU = Data are statistically unreliable.
Source: New Jersey Department of Health and Senior Services, Center for Health Statistics

Cervical cancer is the tenth most common cause of cancer death among women in the U.S., accounting for about 1.8 percent of cancer deaths among women. Although death rates from cervical cancer are low relative to those from other types of cancer, this is an important objective, since these deaths can be prevented. The total age-adjusted death rate from cervical cancer has remained relatively stable during the 1990s following dramatic decreases in the 1970s and 1980s following the initial availability of the Pap test. Although the cervical cancer death rate has declined in recent years among minority women, the death rate in 1998 was more than twice as high in black women as in white. The highest death rate is found among women aged 65 and over.

5. **Objective:** Increase the percentage of women aged 18 and over with intact cervix uteri who had a Pap test within the past two years to:

75.0 percent for females 65+
85.0 percent for all other groups

Populations	1997-1999 Baseline Data	Target	Percent Change	Preferred 2010 Endpoint	Percent Change
Total	78.6	85.0	+8.1	90.0	+14.5
White non-Hispanic	79.9	85.0	+6.4	90.0	+12.6
Black non-Hispanic	80.3*	85.0	+5.9	90.0	+12.1
Asian/Pacific Islander	DSU				
Hispanic	74.0*	85.0	+14.9	90.0	+21.6
Females 65+	62.7*	75.0	+19.6	85.0	+35.6

DSU = Data are statistically unreliable.
*Estimate has a relatively large standard error of more than two percent.
Source: New Jersey Department of Health and Senior Services, Center for Health Statistics, Behavioral Risk Factor Surveillance System

Of women with uterine cervixes, there has been no change during the 1990s in the BRFSS self-reported Pap tests received in the past two years in total, white, minority or elderly populations. Although none of the populations is reporting an adequate level of Pap test screening, the percentages responding positively to this measure differ only slightly by race and ethnicity. Nationally, Asian or Pacific Islanders receive Pap tests at a rate lower than other racial and ethnic groups. Just over sixty percent of females 65 and years of age and older reported having a Pap test within the past two years, although there is not universal agreement among medical professionals on the need for this screening test among elderly women.

6. **Objective:** Reduce the age-adjusted incidence rate of invasive cervical cancer in females per 100,000 standard population[1] to **5.4.**

Populations	1998 Baseline Data	Target	Percent Change	Preferred 2010 Endpoint	Percent Change
Total age-adjusted	8.6	5.4	-37.2	2.0	-76.7
White age-adjusted	8.0	5.4	-32.5	2.0	-75.0
Black age-adjusted	13.9	5.4	-61.2	2.0	-85.6
Asian/Pacific Islander age-adjusted	DSU				
Hispanic age-adjusted	DSU				

DSU = Data are statistically unreliable.
Source: New Jersey Department of Health and Senior Services, Division of Epidemiology, Environmental and Occupational Health

Although black women report they are receiving regular Pap tests at the same rate as white women, the incidence rate of invasive cervical cancer is much higher in black women. Equal targets have been set for all tracked populations, to decrease the disparity in the incidence rate of cervical cancer discovered at the more serious late stage.

7. **Objective:** Reduce the age-adjusted death rate of males from prostate cancer per 100,000 standard population to:

> **10.0   for total males**
> **10.0   for white males**
> **25.3   for black males**

Populations	1998 Baseline Data	Target	Percent Change	Preferred 2010 Endpoint	Percent Change
Total age-adjusted	13.4	10.0	-25.4	6.2	-53.7
White age-adjusted	11.8	10.0	-15.3	5.4	-54.2
Black age-adjusted	32.0	25.3	-20.9	13.6	-57.5
Asian/Pacific Islander age-adjusted	DSU				
Hispanic age-adjusted	DSU				

DSU = Data are statistically unreliable
Source: New Jersey Department of Health and Senior Services, Center for Health Statistics

Prostate cancer is the third leading cause of cancer mortality in New Jersey men, accounting for some twelve percent of male cancer deaths. The age-adjusted death rate shows a slight decline in recent years. The age-adjusted prostate cancer death rate among black males in New Jersey in 1998 was 2.7 times the rate among white males. Much remains unknown about

the risk factors for prostate cancer, including the sources of racial disparities, and the efficacy of the digital rectal exam and the Prostate Specific Antigen screening test is still the subject of debate, the targets were set to lower rates for each group, but, in view of the information gaps, the disparity by race is expected to remain.

8. Objective: Reduce the age-adjusted death rate from colorectal cancer per 100,000 standard population[1] to:

> **10.0 for the total population (age-adjusted)**
> **10.0 for whites (age-adjusted)**
> **14.0 for blacks (age-adjusted)**
> **122.7 for persons 65+**

Populations	1998 Baseline Data	Target	Percent Change	Preferred 2010 Endpoint	Percent Change
Total age-adjusted	12.4	10.0	-19.4	7.0	-43.5
White age-adjusted	12.2	10.0	-18.0	7.0	-42.6
Black age-adjusted	16.3	14.0	-14.1	7.0	-57.1
Asian/Pacific Islander age-adjusted	DSU				
Hispanic age-adjusted	DSU				
Persons 65+	143.0	122.7	-14.2	80.0	-44.1

DSU = Data are statistically unreliable.
Source: New Jersey Department of Health and Senior Services, Center for Health Statistics

Colorectal cancer is responsible for the third largest number of cancer deaths of New Jerseyans each year, following lung and bronchus cancer and cancer of digestive organs other than the colon and rectum. Study has shown colorectal cancer to be associated with both modifiable and nonmodifiable risk factors. Black death rates are higher than white rates, and are targeted to improve substantially by 2010.

9. Objective: Reduce the age-adjusted incidence rate of cancer of the rectum and rectosigmoid per 100,000 standard population[1] to:

> **13.2 for the total population**
> **13.5 for whites**
> **9.8 for blacks**

Populations	1998 Baseline Data	Target	Percent Change	Preferred 2010 Endpoint	Percent Change
Total age-adjusted	14.9	13.2	-11.4	8.5	-43.0
White age-adjusted	15.1	13.5	-10.6	8.5	-43.7
Black age-adjusted	13.6	9.8	-27.9	8.5	-37.5
Asian/Pacific Islander age-adjusted	DSU				
Hispanic age-adjusted	DSU				

DSU = Data are statistically unreliable

Source: New Jersey Department of Health and Senior Services, Division of Epidemiology, Environmental and Occupational Health

Although the death rate from colorectal cancer (age-adjusted) is higher among blacks than whites, the incidence rate of cancer of the rectum and rectosigmoid is higher in whites. This raises questions of access to screening tests for these cancers: digital rectal examination, fecal occult blood test and sigmoidoscopy. Modifiable risk factors for these cancers include inadequate physical activity (a modifiable risk factor for colon cancer only), obesity, alcohol use and a diet high in fat and low in fiber, fruits and vegetables.

10. **Objective:** Increase the proportion of people aged 50 or older who have received a fecal occult blood test within the past year and/or have ever undergone sigmoidoscopy to **65 percent.**

Populations	1999 Baseline Data	Target	Percent Change	Preferred 2010 Endpoint	Percent Change
Total	54.8	65.0	+18.6	75.0	+36.9
White non-Hispanic	60.4	65.0	+7.6	75.0	+24.2
Black non-Hispanic	32.6**	65.0	+99.4	75.0	+130.1
Asian/Pacific Islander	DSU				
Hispanic	33.0**	65.0	+97.0	75.0	+127.3
Total 65+	61.0*	65.0	+6.6	75.0	+23.0

DSU = Data are statistically unreliable.
*Estimate has a relatively large standard error of more than two percent.
**Estimate has a relatively large standard error of more than 2.5 percent.
Source: New Jersey Department of Health and Senior Services, Center for Health Statistics, Behavioral Risk Factor Surveillance System

As reported in *Healthy People 2010 Objectives,* the value of sigmoidoscopy has been proven through case studies, with an indication of fifty-nine to seventy-nine percent reduction in mortality in the distal colon in age groups 45 and over. The recommendation is for increased screening with an annual fecal occult blood test (FOBT) and flexible sigmoidoscopy every five years for persons 50 through 74 years of age. The target for the percentage of the New Jersey population 50 and over to receive an annual FOBT and/or ever have undergone a sigmoidoscopy is set at better than the highest reported level.

11. **Objective:** Reduce the age-adjusted death rate from lung cancer per 100,000 standard population[1] to:

28.5	**for the total population (age-adjusted)**
28.5	**for whites (age-adjusted)**
31.6	**for blacks (age-adjusted)**
29.0	**for males (age-adjusted)**
25.5	**for females (age-adjusted)**
296.9	**for persons 65+**

Populations	1998 Baseline Data	Target	Percent Change	Preferred 2010 Endpoint	Percent Change
Total age-adjusted	35.2	28.5	-19.0	25.0	-29.0
White age-adjusted	35.0	28.5	-18.6	25.0	-28.6
Black age-adjusted	43.8	31.6	-27.9	25.0	-42.9
Asian/Pacific Islander age-adjusted	DSU				
Hispanic age-adjusted	DSU				
Male age-adjusted	46.4	29.0	-37.5	25.0	-46.1
Female age-adjusted	26.6	25.5	-4.1	25.0	-6.0
Persons 65+	322.1	296.9	-7.8	274.7	-14.7

DSU = Data are statistically unreliable.
Source: New Jersey Department of Health and Senior Services, Center for Health Statistics

Lung and bronchus cancer is the most common cause of cancer mortality among both males and females in New Jersey as well as in the country as a whole. Lung and bronchus cancer accounted for 27.3 percent of all cancer mortality among New Jerseyans in 1998. The major risk factor for this cancer is cigarette smoking, but other risks exist: occupational exposures, as well as radon exposure. Black age-adjusted death rates are higher than those for whites, and male age-adjusted rates exceed those for females. Nationally, lung cancer death rates among males have declined since 1990, but female rates are increasing. The death rates for persons aged 65 and over are extremely high. Targets have been set to narrow the existing disparities by race and gender.

12. **Objective:** Reduce the age-adjusted incidence rate of invasive melanoma per 100,000 standard population[1] to:

> **7.0** **for the total population**
> **8.0** **for whites**
> **0.3** **for blacks**

Populations	1998 Baseline Data	Target	Percent Change	Preferred 2010 Endpoint	Percent Change
Total age-adjusted	12.4	7.0	-43.5	6.2	-50.0
White age-adjusted	14.5	8.0	-44.8	7.3	-49.7
Black age-adjusted	0.8	0.3	-62.5	0.2	-75.0
Asian/Pacific Islander age-adjusted	DSU				
Hispanic age-adjusted	DSU				

DSU = Data are statistically unreliable.
Source: New Jersey Department of Health and Senior Services, Division of Epidemiology, Environmental and Occupational Health

The risk factors for melanoma include fair skin or light complexion and exposure to sunlight. The age-adjusted rate of invasive melanoma is more than twenty times as high in whites as in the black population. In this case, it is not realistic to expect to eliminate the disparity by race. Thus the incidence rate of invasive melanoma is targeted to achieve only a small absolute change in the black population and a larger absolute improvement among whites. In addition, given the currently increasing rates and the latency period, large reductions in incidence over the next ten years are not likely.

13. **Objective:** Reduce the percentage of oral cancer diagnosed in the late (regional and distant) stages of disease to:

> **40.0** **percent for all males**
> **35.0** **percent for all females**

Populations	1998 Baseline Data	Target	Percent Change	Preferred 2010 Endpoint	Percent Change
White Males	51.2	40.0	-21.9	20.0	-60.9
Black Males	58.5	40.0	-31.6	20.0	-65.8
White Females	39.0	35.0	-10.3	15.0	-61.5
Black Females	41.9	35.0	-16.5	15.0	-64.2

Source: New Jersey Department of Health and Senior Services, Division of Epidemiology, Environmental and Occupational Health

Oral cancer includes cancer of the lip, tongue, floor of the mouth, palate, gingiva and alveolar mucosa, buccal mucosa and oropharynx. Oral cancer accounts for approximately two percent of all cancers diagnosed in New Jersey. Incidence rates are higher for men than for women, but that gap has recently narrowed due to the increase in smoking among women in the past

three decades. Incidence is slightly higher among blacks than whites. For all stages combined, the five-year relative survival rate for oral cancer is 53 percent. With early detection, survival rates are considerably higher. The five-year survival rate for oral cancer diagnosed with localized disease is 81 percent. Approximately 36 percent of persons with oral cancer are diagnosed in the *in situ* and localized stages combined. Dentists and primary care physicians can recognize abnormal tissue changes and detect cancer at an early stage during regular checkups.

Cigar, cigarette or pipe smoking, as well as smokeless tobacco use, are risk factors for oral cancer. Heavy alcohol consumption is also a risk factor. Tobacco smoking combined with heavy alcohol consumption has been identified as a particularly potent risk factor.

Discussion

An integrated and coordinated approach to reducing cancer incidence, morbidity and mortality through prevention, early detection, treatment, rehabilitation and palliation is crucial to providing comprehensive cancer control throughout New Jersey. The NJDHSS has taken a number of steps towards this goal. It has completed an internal strategic plan that provides organizational structure to move forward. The Office of Cancer Control and Prevention in the Office of the Commissioner was established and staff hired to coordinate cancer control activities throughout the Department. In May 2000, former Governor Whitman established the "Task Force on Cancer Prevention, Early Detection & Treatment in New Jersey," to undertake a planning initiative to develop a framework and program for statewide comprehensive cancer control. The Task Force is expected to develop a statewide plan within eighteen months of its first meeting.

Activities to reduce the morbidity and mortality due to cancer tend to fall into one of four cancer control categories: research; surveillance; education and outreach; and screening and treatment, or provision of palliative care. In New Jersey there are extensive cancer control activities underway in both the public and private sectors. The Cancer Institute of New Jersey is the state's first institution to receive National Cancer Institute (NCI) designation as a clinical cancer center, and conducts research into the causes and treatment of cancers. There are many other distinguished centers in the state that are also engaged in cancer research. Although the bulk of funding for cancer research comes from the federal government and private sources, such as the pharmaceutical industry, New Jersey has been unique in pioneering the use of state funding to sponsor cancer research. In 1983, the New Jersey Commission on Cancer Research (NJCCR) was established by law to ensure that the citizens of New Jersey receive the fullest benefit from the fight against cancer. It promotes and funds research based in New Jersey into the causes, prevention and treatment of cancer. In recent years the Commission's funding has increased, particularly for breast cancer-related research.

Surveillance, or the tracking of cases of cancer, is absolutely fundamental to epidemiological research that attempts to link apparent trends in cancer to possible risk factors or causes. New Jersey's Cancer Registry, located in NJDHSS, is considered one of the most complete and up-to-date registries in the nation. The information in the Registry is used by cancer researchers inside and outside State government, and is also released to the public in periodic reports of topical interest. For example, the Registry provides key data for the health assessments NJDHSS conducts of Superfund and other sites where hazardous materials have been identified. Registry data have also been used to produce NJDHSS reports on such key issues as breast cancer morbidity and mortality, long-term trends in overall cancer incidence in New Jersey, and trends in pediatric cancers in the state, in prostate cancer and in cancers among Hispanics in New Jersey.   The cancer rates in smaller population groups, such as New Jersey's Asian or Pacific Islander population, are considered unreliable. Occurrences of the major cancers among several racial and ethnic groups in the United States are published by the NCI's Surveillance, Epidemiology, and End Results (SEER) Program. The New Jersey State Cancer Registry has recently been awarded a contract by the National Cancer

Institute to be a SEER (Surveillance Epidemiology and End Results) Registry. This contract will further strengthen the data quality of the Registry, and increase the resources and opportunities for collaborative work in cancer surveillance and cancer control.

Education of the public on ways to prevent cancer and/or detect certain types of cancer at early, treatable stages is fundamental to successful control of these diseases. There are many private organizations engaged in such education, ranging from the broadly-based American Cancer Society to groups organized around specific types of cancer. The state has targeted its education and outreach efforts to high-risk and/or underserved groups. The educational messages and strategies differ by type of cancer. For example, lung cancer is a disease that can be largely prevented through avoidance of tobacco usage. It is not easily detected and treated at an early stage, however. As a result, education efforts concentrate on motivating adolescents not to start smoking and smokers to quit, in order to reduce incidence rates. (For more detail on the state's tobacco control program please see chapters 3C and 4E).

For breast and cervical cancer, on the other hand, the focus is on encouraging routine screenings, to allow early detection and treatment. The higher proportions of invasive breast and cervical cancer cases and the higher death rates among black women suggest inadequate screening and/or a breakdown in the receipt of appropriate treatment and follow up in black women who receive a positive reading on a screening test. Minority and elderly women lag behind the total population in their use of screening tests, such as the clinical breast examination and mammography. They appear to use Pap screening tests at the same rate, which makes their higher rate of invasive cancer difficult to explain. In many cases, the problem is not only lack of awareness, but also lack of access to screening. Since 1993, NJDHSS's New Jersey Cancer Education and Early Detection Program (NJCEED) has provided education, outreach and screening services to underserved and uninsured women. To date, the NJBCCCI has screened more than 19,000 women for breast cancer and 16,000 for cervical cancer. Ninety-six percent of women screened were uninsured; twenty-five percent were African American; and sixty-eight percent were over the age of 50 years. A total of 176 breast cancer cases and eighty-six cases of cervical cancer have been diagnosed through this program. The State increased funding for this program in 1999, in order to reach more high-risk women.

Individual women are responsible for using screening tests, but health care providers and insurers play a key role in encouraging them to do so. In 1999, New Jersey issued its third annual report on the performance and quality of care in managed care plans. Among the performance measures for managed care plans is their success in providing breast cancer screening, such as mammograms to enrolled women. According to the 2000 report, sixty-eight percent of older women enrolled in 1998-1999 in New Jersey commercial managed care plans were screened for breast cancer. Performance varied greatly among individual managed care plans. Former Governor Whitman and the Commissioner of NJDHSS challenged all plans to improve their performance.

Since January, 1998 Medicare has covered the annual cost of mammography and Pap tests for women 65 and over. To assure that women in this age group take advantage of these newly covered services, NJDHSS works with the Peer Review Organization of New Jersey and other private organizations to promote and improve cancer screening among elderly women. In addition, NJDHSS will be working more closely with nursing homes to assure that elderly female residents receive proper screening.

Prostate cancer is the leading cause of cancer morbidity for men and remains the second leading cause of cancer mortality in males in the United States. Prostate cancer is the third leading cause of cancer death among New Jersey men. Black men are at particular risk; they are more than two and a half times as likely to die of this disease as white men. In 1997, the state convened a Prostate Cancer Summit Task Force to develop a strategic, comprehensive action plan to reduce the mortality and morbidity from prostate cancer statewide. Among its many recommendations, the Task Force called for initiation of screening for all men aged 50 and over, and black men aged 40 and over. Considerable controversy persists, both nationally and in New Jersey, on the question of whether prostate cancer screening prolongs life. Consequently, NJDHSS in 1999 initiated a prostate cancer education program for high risk, uninsured and underinsured men. Men at high risk include black men and men with a history of prostate cancer among close relatives, such as a father, brother or uncle. Through this program high-risk men will have the opportunity to make an informed choice, together with a physician, about the risks and benefits of screening for prostate cancer.

Education about diet and the value of screening is also essential for effective control of colorectal cancer. Colorectal cancer refers to cancers of the colon/rectum. Although the incidence and mortality rates of such cancers have declined in recent years, colorectal cancer still accounts for about twelve percent of all cancer deaths in New Jersey. There are modifiable risk factors that are thought to decrease the chance of a person developing colorectal cancer. These include reducing fat intake to no more than twenty to thirty percent of one's total calories; consuming twenty-five grams of fiber per day; maintaining a healthy weight; limiting alcohol consumption; and maintaining a moderate level of physical activity, such as a brisk walk three hours per week. There is not yet scientific consensus on the role of these factors in preventing or causing colorectal cancer, however. The recent decline in death rates from colorectal cancer may be attributed to increased early detection practices and treatment. The digital rectal examination (DRE), fecal occult blood test (FOBT), sigmoidoscopy and colonoscopy are effective screening tools for detecting colorectal cancer at an early, treatable stage. NJDHSS's expanded education and screening programs for breast, cervical and prostate cancer among high-risk and underserved populations will also provide colorectal screenings.

For skin cancer, education and outreach should concentrate on modifying behavior. This is a largely preventable disease caused by excessive sun exposure. According to the American Cancer Society, it was estimated that in 2000, about 47,700 new melanoma cases would be diagnosed in the United States and 7,700 people would die from this disease.[2] Melanoma is much less common than basal cell and squamous cell skin cancer, but is the most serious. Skin cancer can be prevented by minimizing sun exposure, particularly during the middle of the day when ultraviolet light is most intense; routinely using sunscreen; seeking shade; and wearing protective clothing. Early detection through self-examination can also reduce mortality from malignant melanoma. While NJDHSS does not currently offer educational programs directed at skin cancer, it has identified this as an issue for further investigation. Although the incidence rates of malignant melanoma are comparatively low, they recently have been rising by four percent per year. This is a disturbing trend for a preventable cancer.

In December of 1999, New Jersey became the first state in the nation in which all major health insurers agreed voluntarily to cover all costs of routine care of patients receiving treatment in all phases of cancer clinical trials. This agreement was reached through a voluntary partnership of health insurers, health care providers, pharmaceutical companies, cancer researchers, advocates, ethicists, legislators and consumers.

The recently enacted Breast and Cervical Cancer Prevention and Treatment Act of 2000 (BCCPTA) amends Title XIX of the Social Security Act to give states the option to provide full Medicaid benefits to uninsured women under age 65 who are identified through the Centers for Disease Control and Prevention's National Breast and Cervical Early Detection Program, are in need of treatment for breast and cervical cancer, and were not previously eligible for benefits. Legislation in New Jersey has been introduced to implement the provisions of the federal statute.

RELATED OBJECTIVES

II. 2 Objective 2   -   Reduce the percentage of uninsured workers 19 through 64 years of age with children under 18.

II. 2 Objective 3   -   Increase the percentage of adults who report they have a source of primary care.

III. 3C Objective 3   -   Reduce the percentage of middle school students who have used cigarettes in the past 30 days.

III. 3C Objective 4   -   Reduce the percentage of public high school students who say they are currently smoking.

III. 3D Objective 1   -   Increase the percentage of persons aged 18 and over eating at least five daily servings of fruits and vegetables (including legumes).

IV. 4F Objective 2   -   Reduce the estimated age-adjusted tobacco-related death rate.

IV. 4F Objective 5   -   Reduce the prevalence of cigarette smoking among the population aged 18 and over.

ENDNOTE

[1] The standard population used in this report for age-adjustment of death rates is the United States 1940 standard million, derived from the counts of the 1940 decennial census, while the age-adjusted cancer incidence rates use the United States 1970 standard million.

[2] American Cancer Society, Web site, Prevention and Awareness Statistics <http://www.cancer.org7>

In New Jersey in 1998, HIV infection was the leading cause of death for black men and women aged 25 through 44. It was also the fourth leading cause of death for both white men and white women in this age group. New Jersey ranks fifth in the nation in the cumulative number of reported AIDS cases. In a 1999 survey of New Jersey residents, HIV/AIDS was identified as the third leading health issue facing this State. Among black New Jerseyans, it is the health issue of greatest concern.

Considerable progress has been made since 1981, when AIDS was first identified. The modes of transmission of the disease are now well understood and, in very recent years, advances in treatment have extended the length and quality of life for people infected with HIV, the virus that causes AIDS. There is, however, no vaccine or cure as yet. As a result, efforts to control HIV/AIDS focus on prevention through modification of sexual and injecting-drug use behaviors among high-risk populations. Progress has been made in reducing the incidence of infection, but much more must be achieved to reduce the burden of this disease, especially on people of color in New Jersey.

Treatment is also a focus of HIV/AIDS control efforts. In New Jersey, it has been estimated that only fifty-eight percent of those infected with HIV are aware of their HIV status. Because of the recent advances in antiretroviral therapies, which can prolong and improve the quality of life of those infected with HIV, it is more important than ever for infected people to know their status, so they can begin treatment.

The year 2010 objectives for HIV/AIDS track mortality rates and incidence rates among populations that have been particularly adversely impacted, as well as awareness by people of their HIV status.

2010 Objectives

1.   **Objective:** Increase the percentage of the HIV infected population who know that they are infected by HIV to **75.0 percent.**

Population	1997 Baseline Data	Target/Preferred 2010 Endpoint	Percent Change
HIV infected persons	58.0	75.0	+29.3

Source: New Jersey Department of Health and Senior Services, Division of AIDS Prevention and Control

In order to delay the progression of HIV disease and increase the survival rate of persons who are HIV positive, it is critical that the infected population is aware of its positive status. New treatments are available that enable HIV-infected persons to live longer, healthier lives. Data for assessing progress on this objective are obtained through the annual survey of childbearing women in New Jersey, as well as two CDC-generated estimates for states.

2. **Objective:** Reduce the incidence of HIV disease among females aged 15 through 44 years per 100,000 population to:

> **20.1 for all females**
> **5.5 for non-Hispanic white females**
> **49.9 for non-Hispanic black females**
> **27.3 for Hispanic females**

Populations	1998 Baseline Data	Target	Percent Change	Preferred 2010 Endpoint	Percent Change
Total females 15-44	34.6	20.1	-41.9	5.0	-85.5
White non-Hispanic	7.3	5.5	-24.7	5.0	-31.5
Black non-Hispanic	166.3	49.9	-70.0	5.0	-97.0
Asian/Pacific Islander	N/A				
Hispanic	32.5	27.3	-16.0	5.0	-84.6

N/A = Not Available
Source: New Jersey Department of Health and Senior Services, Division of AIDS Prevention and Control

HIV disease incidence rates include both persons diagnosed with HIV within the year and still alive who have not progressed to symptoms associated with AIDS, as well as those who have progressed. The female child-bearing population, generally considered to be 15 through 44 years of age, is at increasing risk of the disease. This is particularly true for black women. Nationally, the proportion of total AIDS cases attributable to women is increasing, and in New Jersey, the percentage of newly diagnosed cases who are female stands at more than one-fourth. This is considerably higher than the comparable percentage in the U.S. Targets have been set to narrow the existing disparities by race and ethnicity.

3. **Objective:** Reduce the incidence of HIV disease among males aged 15 through 44 years per 100,000 population to:

> **45.7 for all males**
> **13.7 for non-Hispanic white males**
> **94.0 for non-Hispanic black males**
> **77.8 for Hispanic males**

Populations	1998 Baseline Data	Target	Percent Change	Preferred 2010 Endpoint	Percent Change
Total males 15-44	58.6	45.7	-22.0	10.0	-82.9
White non-Hispanic	18.2	13.7	-24.7	10.0	-45.1
Black non-Hispanic	229.3	94.0	-59.0	10.0	-95.6
Asian/Pacific Islander	N/A				
Hispanic	91.6	77.8	-15.1	10.0	-89.1

Source: New Jersey Department of Health and Senior Services, Division of AIDS Prevention and Control

Rates of HIV disease incidence among males remain considerably higher than comparable rates in females. Rates in black non-Hispanic males are more than twice the level for Hispanic males, and more than ten times the rate in white non-Hispanic males. Targets have been set to drastically reduce the disparities in incidence by race and ethnicity as well as further reduce the overall incidence.

4.   **Objective:** Reduce the rate per 100,000 population of newly diagnosed HIV infections among persons at least 50 years of age to:

7.8   for all those 50 years old or more
13.3   for males 50 years old or more
3.6   for females 50 years old or more

Population	1998 Baseline Data	Target	Percent Change	Preferred 2010 Endpoint	Percent Change
Total 50 years old or more	11.7	7.8	-33.3	3.0	-74.4
Males - 50 years old or more	18.7	13.3	-28.9	3.0	-84.0
Females - 50 years old or more	6.1	3.6	-41.0	3.0	-50.8

Source: New Jersey Department of Health and Senior Services, Division of AIDS Prevention and Control

While those at least 50 years of age are not the largest group of individuals becoming infected with HIV, they represent an ever increasing proportion of those living with HIV infection. Among those newly diagnosed and reported, they have grown from ten percent in 1994 to twelve percent in 1998. Although only seven percent of those living with HIV were 50 years old or more when diagnosed, fourteen percent are now at least 50 years old. With the aging of the "baby boomer" generation, the proportion of those living with HIV in this age group will continue to increase, and could approach twenty percent by the end of this decade.

5.   **Objective:** Reduce the incidence of HIV disease among adolescents/young adults aged 13 through 24 per 100,000 population to **6.6.**

Population	1998 Baseline Data	Target/Preferred 2010 Endpoint	Percent Change
All persons aged 13-24 years	11.0	6.6	-40.0

Source: New Jersey Department of Health and Senior Services, Division of AIDS Prevention and Control

The incidence of HIV disease among adolescents and young adults is low relative to most of the rest of the population. Young people in this age group who have HIV disease are survivors of perinatal transmission or people with early exposures to the risk factors for HIV infection. Programs designed to prevent perinatal transmission and prevention programs aimed at young populations can have a positive effect on the incidence rate in this age group.

6. **Objective:** Reduce the percentage of HIV-positive readings in mothers of newborns to **0.10 percent.**

Population	1999 Baseline Data	Target/Preferred 2010 Endpoint	Percent Change
Mothers of newborns	0.25	0.10	-60.0

Source: New Jersey Department of Health and Senior Services, Division of AIDS Prevention and Control

New Jersey has been collecting data on the percentage of HIV positive readings in mothers of newborns since 1988. Although the drugs ZVD/AZT can be highly effective in reducing the transmission of HIV from mothers to infants, the goal is to further reduce the prevalence of HIV disease among pregnant women. This percentage has been steadily declining through the decade of the 1990s.

7. **Objective:** Reduce the incidence per 100,000 population of AIDS among New Jersey residents to:

> **14.6 for total population**
> **4.3 for non-Hispanic whites**
> **31.1 for non-Hispanic blacks**
> **21.3 for Hispanics**

Populations	1998 Baseline Data	Target	Percent Change	Preferred 2010 Endpoint	Percent Change
Total	20.0	14.6	-27.0	3.0	-85.0
White non-Hispanic	5.7	4.3	-24.6	3.0	-47.4
Black non-Hispanic	97.2	31.1	-68.0	3.0	-96.9
Asian/Pacific Islander	N/A				
Hispanic	25.1	21.3	-15.1	3.0	-88.0

N/A = Not Available
Source: New Jersey Department of Health and Senior Services, Division of AIDS Prevention and Control

The incidence of AIDS has been declining among the population in New Jersey, after a surge in cases in 1993 engendered by an expansion of the definition of AIDS by CDC. Despite the overall decline, major disparities remain, with a rate in the black non-Hispanic population which is far higher than in Hispanics or white non-Hispanics. Targets are set to narrow the gaps considerably.

8. **Objective:** Reduce the death rate from HIV infection per 100,000 population to:

> **5.0** **for the total population (age-adjusted)**
> **2.2** **for non-Hispanic whites (age-adjusted)**
> **34.5** **for non-Hispanic blacks (age-adjusted)**
> **14.6** **for total population 25-44**
> **5.0** **for non-Hispanic whites 25-44**
> **77.2** **for non-Hispanic blacks 25-44**

Populations	1998 Baseline Data	Target	Percent Change	Preferred 2010 Endpoint	Percent Change
Total age-adjusted	8.3	5.0	-39.8	2.0	-75.9
White non-Hispanic age-adjusted	2.7	2.2	-18.5	2.0	-25.9
Black non-Hispanic age-adjusted	43.1	34.5	-20.0	2.0	-95.4
Asian/Pacific Islander age-adjusted	N/A				
Hispanic age-adjusted	8.5	DSU			
Population aged 25-44	18.3	14.6	-20.2	5.0	-72.7
White non-Hispanic aged 25-44	6.4	5.0	-21.9	5.0	-21.9
Black non-Hispanic aged 25-44	82.0	77.2	-5.9	5.0	-93.9
Hispanic aged 25-44	19.6	DSU			

DSU = Data are statistically unreliable.
N/A = Not Available
Source: New Jersey Department of Health and Senior Services, Center for Health Statistics

The overall death rate from HIV infection declined in New Jersey in 1996, the first time this rate had declined since HIV infection was first available as a separate distinct category in the International Classification of Diseases - Ninth Revision. The trend in deaths in the 25 through 44 age group is similar to that in the total population, since almost seventy percent of the HIV infection deaths occur in this age group. In both the highest-risk and the overall populations, targets have been set to reduce the disparities in the death rate by race/ethnicity.

Discussion

After AIDS and HIV were first identified, annual incidence and mortality rates increased quickly. Nationally, the disease seemed to be one affecting primarily homosexual males. In New Jersey, heterosexual injecting drug users have always been the largest group of persons infected with HIV.   In New Jersey the nature of this epidemic has changed in recent years, however, and the following trends have emerged:

\# Beginning in 1995, for the first time since HIV/AIDS was identified, there was a decline in the overall reported AIDS and HIV incidence.

\#   The proportion of HIV/AIDS cases among blacks and Hispanics has steadily increased. Even though they make up less than twenty percent of the State's population, these groups account for nearly three-quarters of New Jersey's AIDS cases, as well as more than seventy-nine percent of those infected with HIV who have not progressed to AIDS.

\#   The number of HIV/AIDS cases among heterosexual injecting drug users (IDU) has remained at a high level, and has always been the largest group of persons infected with HIV in New Jersey.

\#   Heterosexually transmitted infections are continuing to increase, and account for sixteen percent of the reported HIV/AIDS cases.

\#   AIDS and HIV infection have increased among women, particularly young black and Hispanic women. The proportion of adolescents and young adults diagnosed with HIV who are female has increased to fifty-two percent. Of those between the ages of 13 and 24 diagnosed and living with HIV, the majority are now females. Sixty-one percent of females in this age group living with HIV are black, while twenty-two percent are Hispanic.

\#   The number of children born exposed to HIV has been declining and is expected to continue to decline. This is primarily due to prevention and educational efforts aimed at women of childbearing age. Nevertheless, New Jersey has the second highest number of pediatric HIV/AIDS cases, defined as children under age nine, in the nation. Once again, black and Hispanic children are disproportionately at risk. Sixty-nine percent of HIV-infected children are black, while seventeen percent are Hispanic.

\#   Since the introduction of protease inhibitor medications, a decline in the death rates for individuals diagnosed with HIV/AIDS has been observed. It is anticipated that effective prevention and treatment efforts will continue to reduce HIV/AIDS mortality.

\#   In 1998, HIV/AIDS was the eleventh leading cause of death in New Jersey. This was a significant improvement over its sixth place ranking in 1995.

\#   For certain populations in New Jersey, HIV/AIDS is the leading cause of death: black men and women aged 25 through 44 years.

State HIV prevention efforts were restructured between 1995 and 1997 to target high-risk men, women and youth in cities with a high prevalence of HIV/AIDS. Twenty-five HIV prevention programs in these areas currently serve high-risk individuals in the black and Hispanic communities. The programs encourage high-risk individuals to adopt behaviors that will lower their risk of contracting HIV infection. They also emphasize the importance of at-risk individuals learning their HIV antibody status.

The School Based Youth Services Program continues to provide HIV prevention programs to adolescents through a cooperative initiative between the Departments of Education and Human Services. Programs encourage youth to discuss HIV risk with partners and encourage the use of behaviors that reduce the risk of HIV transmission.

Testing of individuals at risk for HIV infection increased from 2,400 in 1986 to more than 65,000 in 1997. The introduction of a simple oral test (OraSure) that can be administered by HIV outreach staff has contributed to the increase in HIV testing. New testing technologies on the horizon, such as rapid testing and urine testing, may further reduce barriers to testing. NJDHSS sponsors physician

continuing medical education programming designed to assist practioners in assessing patient risk for HIV and subsequently counseling them on the benefits of confidential testing. Counseling and testing have also been made available to patients at clinics for sexually transmitted diseases, prenatal and family planning clinics, drug treatment programs and tuberculosis clinics. Infected individuals who test positive are referred to a network of early intervention programs (EIP), where they receive state of the art treatment for HIV disease. The New Jersey EIP network has been able to provide care to more than 12,000 HIV-infected individuals. Through this network, infected individuals are able to access other ancillary services to address a multitude of health concerns for themselves and/or family members. In addition, the NJDHSS, Division of AIDS Prevention and Control, has published "Guidelines for the Medical Management of HIV/AIDS" which provide recommendations for physicians treating persons with HIV disease.

The federal Ryan White CARE Act of 1990 created funding for cities and/or regions, such as Newark and Jersey City which were severely impacted by the HIV/AIDS epidemic. The greatest growth and impact of Ryan White funding has been in providing financial assistance to uninsured or underinsured people with HIV. This has permitted access to life-sustaining medications through the state's AIDS Drug Distribution Program (ADDP). Each year, more than 2,600 individuals with HIV directly benefit from this program by having their drugs, which otherwise could cost up to $5,000 annually, paid for by ADDP.

In 1994, results from a national clinical trial demonstrated that it was possible to significantly reduce mother-to-infant, or perinatal, transmission of HIV by using an antiretroviral drug, zidovudine (AZT or ZDV). New Jersey has made a concerted effort to educate health care workers and women of childbearing age on the benefits of HIV testing and the use of AZT/ZDV for pregnant women who test positive. In 1995 a law was passed that required providers to counsel pregnant women about these benefits. As a result, the incidence of pediatric HIV has declined substantially, even though it remains high when compared to the nation.

Despite New Jersey's progress in preventing and treating HIV/AIDS, this disease remains a major health threat which disproportionately impacts minority populations. Controlling the spread of HIV will remain one of the state's top health priorities over the coming decade.

In 1998, approximately forty million Americans between the ages of 15 and 64 had a diagnosis of mental disorder alone or of a co-occurring mental and addictive disorder in the past year. In 1990, the national cost of mental illness was $144 billion, with approximately half of this cost representing health care costs, and the other half lost productivity due to illness or premature death.[1]

Only twenty-five percent of persons with a mental disorder ever obtain professional help.[2] It has been estimated that two-thirds of youths with mental health problems do not get treatment. Mental health problems in the elderly may be dismissed as part of the aging process, yet an assessment should be completed to differentiate causes of cognitive, emotional, and behavioral symptoms that may, in some instances, rise to the level of mental disorders, and in other instances be expressions of unmet general medical needs.[3] Normal aging is not characterized by mental or cognitive disorders, yet an estimated 25 percent of people 65 and older experience specific mental disorders, such as depression, anxiety, substance abuse, and dementia.

Mental illnesses affect people of all ages, races, ethnicity, socioeconomic status, and gender, although differences in prevalence can correspond to these factors. Minority populations are especially unlikely to seek and get mental health services. The reasons are varied and complex, and include reluctance to seek treatment due to the persistence of stigma associated with mental illness; inadequate screening of patients by primary care providers for mental illnesses; lack of available care, particularly culturally competent care; and cost barriers.

The provision of mental health services has changed dramatically in recent decades, with an increasing focus on treatment modes that keep the patient functioning to the highest degree possible in his/her natural setting, including the family, community and school or work. In practice, this means a greater emphasis on treatment in outpatient settings, use of a wide range of newly available medications, and relatively short-term in-patient treatment for acute episodes. The advent of managed care has intensified these trends.

The proposed objectives include two population-based measures - self-reports on mental health status and mortality rates from suicide - and four measures of improvement in treatment in the publicly-funded portion of the mental health care delivery system.

2010 Objectives

1. **Objective:** Increase the average number of days during the past thirty days when mental health was reported to be good to:

> **28.0** **for the total population**
> **28.0** **for non-Hispanic whites**
> **28.0** **for non-Hispanic blacks**
> **28.0** **for Hispanics**
> **28.5** **for persons 65**+

Populations	1997-1999 Baseline Data	Target	Percent Change	Preferred 2010 Endpoint	Percent Change
Total	27.1	28.0	+3.3	28.5	+5.2
White non-Hispanic	27.3	28.0	+2.6	28.5	+4.4
Black non-Hispanic	26.7	28.0	+4.9	28.5	+6.7
Asian/Pacific Islander	DSU				
Hispanic	26.4	28.0	+6.1	28.5	+8.0
Adults 65+	28.0	28.5	+1.8	28.5	+1.8

DSU = Data are statistically unreliable.
Source: New Jersey Department of Health and Senior Services, Center for Health Statistics, Behavioral Risk Factor Surveillance System

Healthy life means a full range of functional capacity, both mental and physical, throughout life. This objective is intended as a summary measure of the mental health-related aspects of quality of life. The responses are self-reported through BRFSS interviews and indicate a differential by race and ethnicity.

2.   Objective: Reduce the death rate from suicide per 100,000 population to:

4.8   for all males 15-19
4.8   for white males 15-19
6.5   for black males 15-19
14.6   for white males 65+

Populations	1996-1998 Baseline Data	Target	Percent Change	Preferred 2010 Endpoint	Percent Change
Males aged 15-19:					
Total	6.1	4.8	-21.3	4.8	-21.3
White	4.9	4.8	-2.0	4.8	-2.0
Black	11.0	6.5	-40.9	4.8	-56.4
Asian/Pacific Islander	DSU				
Hispanic	DSU				
White males 65+	21.2	14.6	-31.1	4.8	-77.4

DSU = Data are statistically unreliable.
Source: New Jersey Department of Health and Senior Services, Center for Health Statistics

Suicide is the seventh leading cause of premature death among New Jerseyans, but the highest rates are among elderly white males. While suicide rates in the young population were formerly highest among white males, in recent years the suicide rate in young black males has surpassed that of white males of similar age. *Healthy People 2010* reports that almost all people who commit suicide have a diagnosable mental or substance abuse disorder, suggesting suicide can be prevented through timely diagnosis and treatment of these disorders. Targets have been set which will narrow the disparities among the most-affected groups.

3.   Objective: Reduce the admissions to non-emergency, inpatient psychiatric hospitals by **10.0 percent.**

Measure	FY 1999 Baseline Data	Target/Preferred 2010 Endpoint	Percent Change
Admissions	3,296	2,966	-10.0

Source: New Jersey Department of Human Services, Division of Mental Health Services

The shift of emphasis from in-patient hospitalization for treatment of mental illness to community-based services is designed to reduce the need for in-patient hospitalization. Advances in medication to control the symptoms of mental illness should also lower the hospitalization rate. The Programs for Assertive Community Treatment model has been introduced in New Jersey and is showing some initial positive results.

4. **Objective:** Reduce the annual percentage of short-term readmissions of youth with Serious Emotional Disturbance to inpatient hospitalization in Children's Crisis Intervention Services to **5.0 percent.**

Population	1998 Baseline Data	Target/Preferred 2010 Endpoint	Percent Change
Youth readmitted	8.3	5.0	-39.8

Source: New Jersey Department of Human Services, Division of Mental Health Services

Short term readmissions for purposes of this objective are defined as youth with Serious Emotional Disturbance (SED) who are readmitted to a children's Crisis Intervention Service within 30 days of discharge. In most cases, hospitalizations are for acute episodes of mental illness, which mental health treatment can minimize. Reduction of short-term readmission is a primary goal of the children's mental health system.

5. **Objective:** Increase the percentage of site reviews of youth programs which include parent participation to **50.0 percent.**

Measure	1998 Baseline Data	Target/Preferred 2010 Endpoint	Percent Change
Site reviews with parent participation	0.0	50.0	N/A

Source: New Jersey Department of Human Services, Division of Mental Health Services

The Division of Mental Health Services considers input from consumers and parents to be valuable in judging the appropriateness and quality of services. Active parent participation in reviewing programs is expected to add an important aspect to the Division of Mental Health Services Performance Improvement Program.

6. **Objective (Developmental):** Increase the number of persons who are in the criminal justice system and have serious mental illness (as defined by the Diagnostic and Statistical Manual, Edition IV) who are provided with appropriate services to _____.

Population	Baseline Data	Target	Percent Change	Preferred 2010 Endpoint	Percent Change
Seriously mentally ill persons, in criminal justice system getting services					

Source: New Jersey Department of Human Services, Division of Mental Health Services

A number of initiatives are underway in the state to provide adequate, secure facilities and treatment to persons with mental illness who are involved with the criminal justice system. These initiatives include construction of additional beds in both the mental health and correctional systems, provision of mental health treatment for sexually violent predators at a separate facility to be administered by the Department of Corrections, an expansion of the Ann Klein Forensic Center and provision of competency evaluations at the jails to avoid unnecessary transportation from the jails.

Discussion

Limitations on data available to the state create serious constraints in developing year 2010 objectives that apply to the population as a whole. Opportunities exist in future reports to develop measures for both mental health and mental illness. "Mental health is a facet of health that evolves throughout the lifetime and affects persons of all racial and ethnic groups, both sexes, and all socioeconomic groups".[4] Mental health is defined as "a state of successful performance of mental function, resulting in productive activities, fulfilling relationships with other people, and the ability to adapt to change and to cope with adversity. Mental illness is the term that refers collectively to all diagnosable mental disorders."[5]

Community Based Treatment

New Jersey has steadily moved from total reliance on hospitals as the locus of care for persons with serious mental illness. More accessible community-based services and advances in medication have enabled many people with mental illness to live productive lives, not disrupted by unnecessary hospitalization.

Recent expansion of mental health services provided under the auspices of the New Jersey Department of Human Services (NJDHS) is intended to continue that trend and reduce the occurrence and duration of any hospitalization. Among these efforts has been the development of Programs for Assertive Community Treatment teams (PACT) in most of New Jersey's counties. This comprehensive service approach has been very successful in several other states and shows good initial results here. Case management services have also been consolidated into Integrated Case Management Services (ICMS) to allow a flexible level of response to the needs of those with mental illness and to provide a minimum of eighteen months follow-along case management services for every patient discharged from State or county public psychiatric hospitals. Expansion of Self-Help Centers to all counties has allowed consumers of mental health services to increase skills and provide support to each other. Intensive Family Support Services (IFSS) has similarly been expanded to all counties to allow opportunities for families to receive support and training to be of additional assistance to their relatives with mental illness. These efforts will continue to increase and involve more people at a community level.

Adolescent Treatment

New Jersey has also been a leader among states in the movement to reduce the reliance on state-operated inpatient psychiatric hospitalization to meet the mental health needs of youth in need of long term treatment. In 1978, children's units based in four adult state hospitals were closed and these inpatient services were consolidated in the Adolescent Unit at Trenton and in the Arthur Brisbane Child Treatment Center in Farmingdale. In 1989, the Adolescent Unit was closed and Brisbane's treatment program was redesigned to serve youth from 11 through 17 years of age. Since then, youth under the age of 11 have been treated in the community and are no longer committed to the single

remaining forty-bed state hospital at Brisbane. The development of a community-based system of services makes it possible for many youth to receive treatment closer to home. A range of community alternatives also allows families to participate in the treatment of their youngsters to an extent that had not been possible when their children were hospitalized far from home.

As part of the community system of care, New Jersey designated nine inpatient Children's Crisis Intervention Service (CCIS) units in community hospitals to provide short-term inpatient psychiatric care for children and adolescents. Since 1990, the average length of stay of youth in these CCIS units has dramatically decreased, from 28 days to 7 days. Following CCIS admission, youth are rapidly stabilized and prepared for discharge. The result is brief individual and family therapy, targeted psychiatric intervention, including the use of medication when appropriate, and referral to outpatient follow-up services for continued treatment. However, twelve percent of youth are returned to the CCIS for additional treatment within six months of their initial discharge, with over eight percent readmitted within 30 days. These readmission rates demonstrate that the vital connection to community aftercare services is not always complete.

New Jersey agrees with the conclusions regarding rehospitalization of the federal Substance Abuse and Mental Health Services Administration Mental Health Statistics Improvement Program Workgroup, "Given the increasingly limited use of psychiatric inpatient care, hospitalization most likely indicates an acute episode of illness. An important goal of mental health treatment is to minimize such episodes. Avoiding the recurrence of acute illness within 30 days of discharge is an important benchmark of effective mental health treatment".[6]

Lack of compliance with discharge plans and delays in the initiation of community based follow-up services are the most frequently cited causes for readmission to New Jersey's community crisis inpatient units. Expanding youth case management and other intensive in-home after-hospital services may provide the additional support some parents need to help them understand and participate more fully in their children's continuing treatment. Enhancing the relationships between community mental health providers, families and local community support services, such as churches, synagogues, schools and vocational agencies, will foster the innovative collaboration needed to augment traditional aftercare services. By providing flexible, family-focused treatment based on individual needs and incorporating individual strengths, more of our youth will be able to remain in their homes and communities after inpatient treatment and avoid rehospitalization.

The School Based Youth Services Program provides individual and group counseling to adolescents and other family members. The program activities are designed to help youth cope with normal adolescent stress, identify and treat mental health problems, and, in some cases, treat more serious psychological problems.

New Jersey has long understood the importance of working with parents when planning and delivering mental health services for children and adolescents. Parents must be equal partners with the treating professionals in the development of their child's treatment plan and in all treatment decisions. They must be true members of their child's treatment team in all mental health programs. Parents are members and chairs of the Children's Coordinating Councils and the Children's Mental Health Planning Council. Although not true for parents of adults with mental illness, one area where input of parents of youth has been lacking is in program evaluation. In 1999, parents of youth with serious emotional disturbances began to be included in this important process for the first time.

Input from parents, family members, and youth who have received treatment is necessary in evaluating the appropriateness and quality of mental health services. Parents often know their children best and they bring a unique perspective to the evaluation of services, because they have experienced mental health services first hand. Active parent participation in reviewing programs that serve youth with SED will add an important aspect to the NJDHS Division of Mental Health Services Performance Improvement Program. Parents receive orientation, education and training on standards, policies and site review procedures prior to participating in reviews, and will be compensated for their participation. Transportation and childcare needs will be considered when scheduling parents on reviews.

In the Spring of 1999 former Governor Whitman announced an initiative to expand the array of services available to children with serious emotional and behavioral problems. The goal of the Children's Initiative is to shift the focus from a crisis-based system to one that provides early intervention and comprehensive community-based services to children. Planning for this initiative is underway at the Department of Human Services.

Criminal Justice System Mental Health Needs

New Jersey, as other states, has recognized the need for specialized approaches to the mental health needs of those who have a serious mental illness and are involved in the criminal justice system. National news reports and studies have identified gaps in service provision that can be detrimental to the individual involved as well as the community. New Jersey has taken, and will continue to take, steps to improve mental health services for this population. There are numerous categories involved requiring different responses. Included are people with criminal charges who are in need of mental health treatment; people who have served their sentences for particular offenses who are still a danger to the public; and people who have committed crimes but have serious mental illness and are not legally responsible for the crimes.

In 1997, former Governor Whitman appointed a Task Force for the Review of Treatment of the Criminally Insane. That Task Force was charged with studying the current practices used in the public psychiatric hospitals for housing and treating the criminally insane, with particular emphasis on issues of security and the rights of patients and persons who reside near those facilities. A formal report was issued in October 1997. It concluded that patients with certain criminal histories should be transferred to certain secure facilities and that a centrally located secure facility should be constructed. This would help address the concerns for those designated as Incompetent to Stand Trial, those charged with criminal offenses requiring court-ordered evaluations, county jail inmates requiring inpatient hospital treatment, and those persons having committed sexual offenses and subject to Megan's Law.

From the Task Force's recommendations, a number of legislative proposals were enacted, including a 1998 statute intended to assure that certain patients be relocated from those psychiatric hospitals where treatment and security may not be suitable. Another law enacted in 1998 provides for a new commitment process for individuals with a "mental abnormality" which makes them "likely to engage in acts of sexual violence." Since Megan's Law was enacted in 1994, over 200 sex offenders have been committed as "mentally ill" to State psychiatric hospitals from correctional facilities. With the new law, it is expected that the vast majority of future commitments of sex offenders from correctional facilities meet the criteria under that law and that most sex offenders currently at State psychiatric hospitals will be transferred to a new unit. A 1999 law requires the Commissioner of the Department of Corrections to provide or arrange for appropriate mental health services to State-sentenced incarcerated persons who suffer from mental illness, as defined by statute, but are not in need of inpatient treatment at a State psychiatric facility.

Additional beds are being constructed in both the mental health and the correctional systems to accommodate those in need of treatment. A separate facility will be constructed for sexually violent predators under the administration of the Department of Corrections. Mental health treatment at this facility will be provided by the NJDHS Division of Mental Health Services. An expansion of the Ann Klein Forensic Center, under the auspices of NJDHS, will accommodate fifty additional patients and increase availability of secure treatment settings for those referred from jails for evaluation or treatment, and those subject to Megan's Law.

As a result of the Task Force's recommendations, mental competency evaluations are now being conducted by staff of the Ann Klein Forensic Center at prisons, to avoid disruptive and sometimes unnecessary transportation from the prisons. Those requiring hospitalization would continue to be referred and treated.

Managed Care Behavioral Health

NJDHSS publishes an annual performance report for managed care insurance plans. Currently this report consists of measures drawn from reviews of selected enrollee medical records, and from a survey of a representative sample of enrollees on their satisfaction with a broad range of managed care plan services. Many members of the public and advocacy groups have expressed particular concerns with behavioral health services provided through managed care plans. As a result, NJDHSS is in the process of developing a survey of plan enrollees that will specifically measure their satisfaction with behavioral health services, and expects to incorporate results of this survey in future reports. Similar reports are under consideration by NJDHSS and NJDHS for clients receiving behavioral health services from state-sponsored mental health and addiction services providers. These will make an important addition to the state's ongoing efforts to assure the quality of mental health services provided to New Jerseyans.

RELATED OBJECTIVES

I. 1 Objective 4   -   Increase days able to do usual activities during the past 30 days, due to good physical or mental health, among persons 18 years and over.

III 3G Objective 7   -   Reduce the statewide average percentage of residents in long-term care facilities using nine or more different medications.

ENDNOTES

[1] U.S. Department of Health and Human Services, *Healthy People 2010*. 2nd ed. With Understanding and Improving Health and Objectives for Improving Health. 2 Vols. Washington, DC: U.S. Government Printing Office, November 2000. II: 18-6.

[2] Department of Health and Human Services. *Healthy people 2010*. 2nd ed. With Understanding and Improving Health and Objectives for Improving Health. 2 Vols. Washington, DC: U.S. Government Printing Office, November 2000. II: 18-6.

[3] U.S. Department of Health and Human Services. *Mental Health: A Report of the Surgeon General-Executive Summary*. Rockville, MD: U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Mental Health Services, National Institutes of Health, National Institute of Mental Health, 1999.

[4] U.S. Department of Health and Human Services. *Mental Health: A Report of the Surgeon General-Executive Summary*. Rockville, MD: U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Mental Health Services, National Institutes of Health, National Institute of Mental Health, 1999.

[5] U.S. Department of Health and Human Services. *Mental Health: A Report of the Surgeon General-Executive Summary*. Rockville, MD: U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Mental Health Services, National Institutes of Health, National Institute of Mental Health, 1999.

[6] Final Report Of The Mental Health Statistics Improvement Program (MHSIP), Task Force On A Consumer Oriented Mental Health Report Card. Workgroup, Substance Abuse and Mental Health Services Administration, Department of Health and Human Services, April, 1996, T22.

Substance abuse, which includes the problematic consumption or illicit use of alcoholic beverages, tobacco products and drugs (including the misuse of prescription drugs), affects all racial, ethnic and income groups, and results in substantial morbidity and mortality, as well as contributing to crime and other social and economic problems.

According to a report from the Institute for Health Policy at Brandeis University, an estimated 100,000 persons die each year in the United States as a result of alcohol alone. In New Jersey, there is an estimated crude death rate of 34.5 per 100,000 population due to alcohol-related causes, including related cancers, cardiovascular diseases, respiratory diseases, digestive diseases, diabetes, intentional and unintentional injuries, and alcohol dependence. Additionally, illicit drug use and related AIDS deaths account nationally for 12,000 deaths annually. In New Jersey, the age-adjusted drug-related death rate is 8.4 per 100,000 population, and the link between injection drug use and HIV/AIDS transmission is stronger than in almost all other states. Finally, the federal Centers for Disease Control and Prevention (CDC) reports that tobacco-related diseases result in over 400,000 deaths per year nationally. In New Jersey, the age-adjusted tobacco-related death rate per 100,000 population is 77.4, according to Smoking Attributable Morbidity, Mortality and Economic Costs (SAMMEC), a methodology developed by CDC. The tobacco-related death rate is still more than twice as high for men as for women.

Year 2010 objectives track progress in reducing death rates attributable to drugs in general, and tobacco and alcohol specifically. They also track the prevalence of cigarette smoking and binge drinking. Numerous related objectives are found in the chapter on healthy behaviors for adolescents.

2010 Objectives

1.   **Objective:** Reduce the age-adjusted drug-related death rate per 100,000 standard population to:

8.0   for the total population
7.0   for whites
13.0   for blacks

Populations	1998 Baseline Data	Target	Percent Change	Preferred 2010 Endpoint	Percent Change
Total age-adjusted	8.4	8.0	-4.8	7.0	-16.7
White age-adjusted	7.9	7.0	-11.4	7.0	-11.4
Black age-adjusted	15.2	13.0	-14.5	7.0	-53.9
Asian/Pacific Islander age-adjusted	DSU				
Hispanic age-adjusted	DSU				

DSU = Data are statistically unreliable.
Source: New Jersey Department of Health and Senior Services, Center for Health Statistics

Drug-related deaths are due to a variety of causes, including drug overdoses, drug psychoses, drug dependence, non-dependent abuse of drugs other than alcohol or tobacco, suicide by drugs, homicidal poisoning by any drug or medicament, and drug poisoning that is undetermined whether accidentally or purposely inflicted. Deaths in this category steadily increased during the early 1990s, but have declined slightly since 1996. The drug-related death rate is very high among the black population, and among males 25 through 44 years of age. Targets have been set to decrease the disparity by race.

2. **Objective:** Reduce the estimated age-adjusted tobacco-related death rate per 100,000 standard population* to:

73.4 for the total population
107.0 for males
47.1 for females

Populations	1998 Baseline Data	Target	Percent Change	Preferred 2010 Endpoint	Percent Change
Total age-adjusted	77.4	73.4	-5.2	70.7	-8.6
Male age-adjusted	113.9	107.0	-5.2	104.1	-8.6
Female age-adjusted	49.6	47.1	-5.1	45.3	-8.6

*The 1940 U.S. population is used as the standard population.
Source: United States Department of Health and Human Services, Centers for Disease Control and Prevention and the New Jersey Department of Health and Senior Services, Center for Health Statistics

The Smoking Attributable Mortality, Morbidity and Economic Cost software (SAMMEC) developed by CDC provides estimates of deaths due to smoking for the total, male and female populations. Derived relative risk factors are applied to numbers of actual deaths from causes of death with a known association with tobacco use, yielding an estimate of the number of deaths attributable to smoking. The disparity in estimated age-adjusted death rates by gender is substantial; the male death rate is more than twice the female rate. Because the prevalence of smoking has been declining during the two decades prior to the 1990s, it is expected that smoking-attributed death rates will decline by 2010 in each group. The term "tobacco-related" rather than tobacco-attributable or tobacco-caused is used in this objective for consistency with national surveys and data.

3. **Objective:** Reduce the death rate per 100,000 population estimated to be due to alcohol-related causes to:

32.7 for the total population
43.0 for males
22.5 for females

Populations	1997 Baseline Data	Target	Percent Change	Preferred 2010 Endpoint	Percent Change
Total	34.5	32.7	-5.2	29.5	-14.5
Male	45.7	43.0	-5.9	39.0	-14.7
Female	23.9	22.5	-5.9	20.5	-14.2

Source: United States Department of Health and Human Services, Centers for Disease Control and Prevention and the New Jersey Department of Health and Senior Services, Center for Health Statistics

Through an adaptation of the methodology used to estimate smoking-related mortality (SAMMEC), an estimate of deaths due to alcohol use is provided. The methodology involves using derived relative risk factors applied to deaths from causes related to the use of alcohol. The process produces estimates for the total population and for males and females. The male alcohol-related death rate is almost twice as high as the female rate.

4.   **Objective:** Reduce the death rate due to alcohol-related motor vehicle injuries per 100,000 population to:

1.7   for the total population (age-adjusted)
3.4   for youth 15-24
2.6   for young adults 25-34

Populations	1999 Baseline Data	Target	Percent Change	Preferred 2010 Endpoint	Percent Change
Total age-adjusted	2.4	1.7	-29.2	1.7	-29.2
Youth aged 15-24	4.8	3.4	-29.0	1.7	-64.6
Young adults 25-34	3.6	2.6	-27.8	1.7	-52.8

Source: New Jersey Department of Law and Public Safety, Division of Highway Traffic Safety

Nationally, alcohol use is associated with more than forty-five percent of all motor vehicle-related fatalities, but this is a substantially lower percentage than existed a decade ago. In New Jersey, the rates of alcohol-related motor vehicle fatalities among both the total population and youth aged 15 through 24 had been declining during the 1990s but increased in 1999. While much progress has been made, the deaths and injuries resulting from the operation of a motor vehicle after consuming alcohol remain a serious problem. Ambitious targets have been set to reduce the rates even further in the total and high-risk age groups.

5.   **Objective:** Reduce the prevalence of cigarette smoking among the population aged 18 and over to:

15.0   percent for adults ≥ 18 years
8.0   percent for adults ≥ 65 years

Populations	1997-1999 Baseline Data	Target	Percent Change	Preferred 2010 Endpoint	Percent Change
Total	20.3	15.0	-26.1	11.0	-45.8
White non-Hispanic	20.5	15.0	-26.8	11.0	-46.3
Black non-Hispanic	23.4*	15.0	-35.9	11.0	-53.0
Asian/Pacific Islander	DSU				
Hispanic	22.3*	15.0	-32.7	11.0	-50.7
Adults 65+	8.5	8.0	-5.9	6.0	-29.4

DSU = Data are statistically unreliable.
*Estimate has a relatively large standard error of one to two percent.
Source: New Jersey Department of Health and Senior Services, Center for Health Statistics, Behavioral Risk Factor Surveillance System

Major initiatives planned or underway to discourage onset of smoking, particularly in adolescents, and to promote cessation in current smokers are expected to lead to a substantial reduction by 2010 in smoking prevalence in the population 18 and over. Current self-reported data on smoking from the New Jersey BRFSS show only slight disparities by race and ethnicity, and smoking prevalence among the elderly at a rate that is almost sixty percent below the total rate. Targets have been set to eliminate the disparities by race and ethnicity.

6.   **Objective:** Decrease the percentage of persons aged 18 years and older who consumed five or more alcoholic drinks per occasion, one or more times during the past month, to:

> **10.6 percent for all adults**
> **11.0 percent for non-Hispanic whites**
> **5.0 percent for non-Hispanic blacks**
> **8.0 percent for Hispanics**

Populations	1999 Baseline Data	Target	Percent Change	Preferred 2010 Endpoint	Percent Change
Total	12.3	10.6	-13.8	7.0	-43.1
White non-Hispanic	14.2	11.0	-22.5	7.0	-50.7
Black non-Hispanic	5.1*	5.0	-2.0	5.0	-2.0
Asian/Pacific Islander	DSU				
Hispanic	9.3*	8.0	-14.0	7.0	-24.7

DSU = Data are statistically unreliable.
*Estimate has a relatively large standard error of one to two percent.
Source: New Jersey Department of Health and Senior Services, Center for Health Statistics, Behavioral Risk Factor Surveillance System

Overall levels of self-reported binge drinking among adults from the New Jersey BRFSS have not changed drastically since the early 1990s. This high-risk behavior is particularly prevalent among younger age groups. Rates of binge drinking are higher among white non-Hispanics and Hispanics than among black non-Hispanics. Nationally there is some suggestion that Asian-Americans equaled African-Americans in their level of drinking, despite lower prevalence rates among Asian-Americans.[1] Reliable state data are not available due to the small number of Asian/Pacific Islander respondents. Targets have been set to narrow disparities among racial and ethnic groups in this state.

Discussion

NJDHSS activities associated with reducing addictions center around monitoring the prevalence of addictions and the provision of prevention, intervention and treatment services.

Tobacco Control

Tobacco use is the single most preventable cause of death and disease in New Jersey. Each year too many New Jerseyans have a diagnosis of cancer, cardiac, pulmonary, and other diseases which significantly impact their quality of life. According to a 1999 study by the Centers for Disease Control and Prevention, each year more than 12,830 New Jersey residents die from diseases directly related to

tobacco use. Implementing effective prevention strategies for all residents of New Jersey is a major goal of NJDHSS. NJDHSS considers limiting tobacco use to be of the highest priority. The problem of tobacco use is community-wide. Exposure to environmental tobacco smoke reduces the quality of life for smokers and non-smokers. Medical expenditures associated with tobacco-related illnesses affect people directly as individuals and indirectly as taxpayers. The annual cost of treating tobacco-related diseases in New Jersey exceeds $1.7 billion a year. New Jersey's new comprehensive tobacco control program will include elements designed to encourage young adults not to start smoking, as well as to assist adult smokers in finding support for their efforts to stop smoking through a Quitline/Quit Net. Other tobacco control initiatives are discussed in Chapter 3C.

Alcohol and/or Drug Treatment

Current estimates of the statewide need for alcohol and/or drug treatment indicate that 677,100 New Jerseyans are in need of such treatment, and that approximately 43,600 persons in this group would seek appropriate treatment if it were readily available. These estimates have been developed and refined between 1995 and 1998, and incorporate data from two major sources: the (adult) Survey of Households in New Jersey conducted in 1993 and 1994, and a supplemental statistical procedure applied to drug treatment admissions data reported by service providers to the Alcohol and Drug Abuse Data System (ADADS) maintained by NJDHSS. ADADS collects data on the frequency of client admission and discharge at treatment centers in New Jersey. Reporting is mandatory for licensed drug or alcohol treatment providers, NJDHSS-approved outpatient programs, agencies funded by NJDHSS or a county government agency providing treatment services, and Intoxicated Driver Resource Center-approved facilities. Of those persons needing treatment, almost seventy percent were male, and 3.7 percent were intravenous drug users, whose drug use is associated with HIV/AIDS transmission, as well as hepatitis B and C infections. In 1999, 54,810 treatment admissions for alcohol and drugs were reported to ADADS.

The current published estimates of the statewide need for alcohol and/or drug treatment have been included in the NJDHSS Substance Abuse Prevention and Treatment (SAPT) Block Grant applications since 1997. New Jersey is currently updating its methodology to generate a more accurate set of figures based on 12 month use, and anticipates making updated prevalence and need estimates with the FFY 2002 SAPT Block Grant application. Prior to the release of the first Healthy New Jersey 2010 update, all baseline figures and targets will be reevaluated if better, scientifically-sound measures are available.

Although men comprise nearly three-quarters of the population needing alcohol and/or drug treatment, NJDHSS provides priority treatment admissions for pregnant women and women with dependent children, through a federal initiative which funds a comprehensive continuum of care, including short- and long-term residential inpatient, intensive outpatient and methadone maintenance treatment. Because of the potential harm their addiction poses to their children, it is essential to make pregnant women and women with dependent children a priority for treatment. In addition, during 1999, NJDHSS, in partnership with the Department of Human Services, implemented the Work First New Jersey Substance Abuse Initiative in order to remove substance abuse as an employment barrier among welfare recipients, many of whom are women with dependent children. The Work First New Jersey Substance Abuse Initiative is a fee-for-service care coordination model incorporating a number of managed care principles. It provides for on-site assessment at local welfare offices of welfare recipients screened as having potential substance abuse problems, authorization of their placement at appropriate network treatment providers, management of their care through a continuum of service levels, and coordination of services with work plan requirements.

Because of their role in the spread of infectious diseases, such as HIV/AIDS and hepatitis B and C, NJDHSS also provides for priority admission of intravenous drug users into drug treatment facilities, and provides targeted funding for HIV Early Intervention Services on site at seventeen licensed drug treatment facilities, statewide, of which thirteen provide methadone maintenance treatment. In 1999, 17.4 percent of admissions to drug treatment were for injecting drug users. Early Intervention Services include the provision of HIV pre-test and post-test counseling, as well as HIV testing.

The decline in New Jersey's death rate due to alcohol-related vehicle fatalities is related in part to the state's comprehensive policy against impaired driving, or driving under the influence (DUI).   The policy, adopted in 1994, incorporates community education; strict enforcement of DUI statutes; use of effective penalties, including driver's license revocation; mandatory post-conviction education; and treatment for all convicted DUI offenders, when indicated, prior to relicensing them to drive. Since implementation of the redesigned Intoxicated Driving Program within NJDHSS, 259,000 DUI offenders have been evaluated and educated between 1984 and 1998 at twenty-four local Intoxicated Drivers Resource Centers. Of those evaluated, 115,000 were referred to alcohol or drug treatment agencies and providers and/or to self help groups.

RELATED OBJECTIVES

III. 3C Objective 3	-	Reduce the percentage of middle school students who have used cigarettes in the past 30 days.
III. 3C Objective 4	-	Reduce the percentage of public high school students who say they are currently smoking.
III. 3C Objective 5	-	Decrease the percentage of middle school students who have used alcohol in the past 30 days.
III. 3C Objective 6	-	Decrease the percentage of middle school students who have used marijuana in the past 30 days.
III. 3C Objective 7	-	Decrease the percentage of middle school students who have used inhalants in the past 30 days.
III. 3C Objective 8	-	Decrease the percentage of public high school sophomores, juniors and seniors who have used alcohol, marijuana, cocaine, and inhalants in the past 30 days.

ENDNOTES

[1] U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration. *Developing Cultural Competence in Asian-American and Pacific Islander Communities: Opportunities in Primary Health Care and Substance Abuse Prevention (Cultural Competence Series)*. Rockville, MD: Center for Substance Abuse Prevention, 1999, 183.

Asthma is a reversible obstructive lung disease characterized by inflammation and increased responsiveness of the airways. Symptoms may include wheezing, chest tightness, coughing, and/or mucous build-up. Individuals living in urban areas are more likely to get asthma and display asthma-like symptoms. There is a strong suspicion of an environmental linkage to asthma incidence. For example, nationwide, nearly twenty-five percent of children living with asthma reside in areas with levels of ozone that exceed national standards. Studies have also found a relationship between asthma incidence and exposure to rat and mouse urine, cockroach feces, dust mites, mold, and many different occupational exposures. It is not fully understood why asthma develops in some individuals while not affecting others exposed to the same risk factors.

Nationally, asthma is responsible for over 5,000 deaths per year, 500,000 annual hospitalizations and, in 1996, was the tenth most common diagnosis in hospital emergency departments. The prevalence of asthma cases has increased eighty-two percent in the last fifteen years alone. For children under age five, the rate increased over 160 percent. In 1990, asthma medical costs nationally exceeded $3.6 billion.[1]

In 1998, there were 13,521 hospitalizations in New Jersey for asthma. Blacks, Hispanics and other minorities accounted for fifty-two percent of these hospitalizations, a disproportionately large share. Over three-fourths of hospitalizations were of children under 19 years of age, and of these, almost half were for children under age five. NJDHSS is not yet able to track emergency department visits, but it is probable that asthma is also one of the most frequent diagnoses in New Jersey hospital emergency departments.

Addressing this increasingly serious disease requires education; identification, evaluation and control of environmental and occupational agents which may trigger the onset of asthma and an asthma attack; and access to primary care that facilitates diagnosis and efficient management of asthma. With good medical management, asthma attacks can be prevented and should not require hospitalization. Year 2010 objectives for asthma focus not only on reducing mortality rates, but also improving management of the disease by reducing asthma-related hospitalizations, including for very young children, and trips to the emergency room.

2010 Objectives

1. **Objective:** Reduce the age-adjusted death rate from asthma per 1,000,000 standard population to:

    9.0   for the total population
    5.0   for whites
    18.0   for blacks

Populations	1996-1998 Baseline Data	Target	Percent Change	Preferred 2010 Endpoint	Percent Change
Total age-adjusted	11.7	9.0	-23.1	5.0	-57.3
White age-adjusted	7.7	5.0	-35.1	5.0	-35.1
Black age-adjusted	37.2	18.0	-51.6	5.0	-86.6
Asian/Pacific Islander age-adjusted	DSU				
Hispanic age-adjusted	DSU				

DSU = Data are statistically unreliable.
Source: New Jersey Department of Health and Senior Services, Center for Health Statistics

Due to the small numbers of asthma deaths per year (fewer than 400 during 1996 through 1998), a three-year average was used to compute the age-adjusted death rates. For 1996 through 1998, the black rate was nearly five times the white rate. With proper care, most asthma deaths are preventable.

2. **Objective:** Reduce the annual asthma hospital admission rate per 100,000 population to:

    150.0   for the total population
    100.0   for non-Hispanic whites
    250.0   for non-Hispanic blacks
    150.0   for Hispanics

Populations	1998 Baseline Data	Target	Percent Change	Preferred 2010 Endpoint	Percent Change
Total	166.6	150.0	-10.0	100.0	-40.0
White non-Hispanic	101.3	100.0	-1.3	100.0	-1.3
Black non-Hispanic	428.0	250.0	-41.6	100.0	-76.6
Asian/Pacific Islander	DSU				
Hispanic	241.6	150.0	-37.9	100.0	-58.6

DSU = Data are statistically unreliable.
Source: New Jersey Department of Health and Senior Services, Division of Health Care Systems Analysis

In 1998, asthma was responsible for 13,521 hospitalizations in New Jersey. Blacks and Hispanics accounted for more than half (52.0%) of this number. Admission rates for black non-Hispanics and Hispanics are substantially higher than for white non-Hispanics. Since asthma can be effectively managed by patients and their primary care doctors on an outpatient basis, many asthma hospitalizations are preventable. Disparities may reflect lack of access to adequate asthma management, poor medication adherence and inadequate environmental controls. Targets have been set to reduce disparities.

3. **Objective:** Reduce the annual asthma hospital admission rate per 100,000 children under age five to:

340.0 for all children under age five
250.0 for non-Hispanic white children
800.0 for non-Hispanic black children
340.0 for Hispanic children

Populations	1998 Baseline Data	Target	Percent Change	Preferred 2010 Endpoint	Percent Change
All children < 5	509.1	340.0	-33.2	200.0	-60.72
White non-Hispanic	278.6	250.0	-10.7	200.0	-28.2
Black non-Hispanic	1,306.2	800.0	-38.8	200.0	-84.7
Asian/Pacific Islander	DSU				
Hispanic	550.5	340.0	-38.2	200.0	-63.7

DSU = Data are statistically unreliable.
Source: New Jersey Department of Health and Senior Services, Division of Health Care Systems Analysis

Hospitalization of children under age five is targeted because the asthma hospitalization rate for children less than five years of age is substantially higher than the hospitalization rate for children 15-19 years of age. Over one-fifth (20.6%) of asthma hospitalizations in 1998 were of children under age five. Minority children are hospitalized disproportionately. More than half of hospitalized children (58.0%) were black or Hispanic. With improved asthma management overall hospitalizations of young children, as well as disparities, should be reduced.

4. **Objective (Developmental):** Reduce the rate of emergency department visits per 100,000 population due to asthma to:

Populations	2002 Baseline Data	Target	Percent Change	Preferred 2010 Endpoint	Percent Change
Total					
White non-Hispanic					
Black non-Hispanic					
Asian/Pacific Islander					
Hispanic					

Source: New Jersey Department of Health and Senior Services, Division of Health Care Systems Analysis

Anecdotal evidence suggests that minority populations rely disproportionately on emergency department visits to treat asthma. NJDHSS plans to develop an emergency department electronic data reporting system which will provide information on visits by diagnoses. The database will contain, among other variables, information on patient demographics. It is anticipated that data on emergency department visits will be captured starting in 2002 and that the data will be available for analysis starting in 2003.

Discussion

The increase in the incidence, morbidity, and mortality of asthma has made it a disease that is receiving growing attention both nationally and in New Jersey. The Centers for Disease Control and Prevention (CDC) is currently developing a national strategy for asthma prevention programs and is proposing substantial increases in federal spending to address asthma. NJDHSS is exploring ways to reduce the morbidity and mortality of asthma in New Jersey.

The environment is believed to play a major role in the incidence and prevalence of asthma. In particular, air pollutants, including allergens, ozone, particulate matter, sulfur dioxide, nitrogen dioxide, indoor air contaminants, and some occupational exposures may trigger or exacerbate asthma episodes. While more research is needed on the relationship between the incidence of asthma and the environment, it is anticipated that the efforts by NJDEP to improve air quality in New Jersey (see section 3A, Environmental Health for related objectives), will help reduce asthma incidence, morbidity and mortality.

In New Jersey, asthma disproportionately results in hospitalization and death for minorities. From 1996 to 1998, the death rate due to asthma was almost five times higher for blacks than whites. Although the overall number of deaths attributed to asthma is low, the disparity among racial and ethnic groups in these largely preventable deaths is unacceptable. Disparities may reflect both greater exposure to possible environmental triggers, as well as other factors including a lack of access to asthma management in primary care settings. Significant progress has been made in the treatment of asthma during the past ten years and access to health insurance, primary care and to appropriate medical therapies should reduce hospitalization rates. However, environmental exposures to asthma triggers may also significantly impact asthma severity, and research shows that ethnic minority populations in urban areas tend to have greater exposure to these environmental factors. Therefore, reduction in disparities related to access to primary care and appropriate medical therapies should reduce the disparities in death rates from asthma, but may not be sufficient to eliminate them entirely by the year 2010.

In 1999, recognizing the burden of asthma on minority communities, NJDHSS, in conjunction with the New Jersey Minority Health Network on Asthma, a community-based organization, developed a pilot *Asthma Resource Guide*. The guide is designed to educate the public and create asthma awareness in three communities, Newark, New Brunswick, and Trenton, as well as highlight asthma-related resources available within these communities. Services available include medical care to manage, monitor and control asthmatic conditions, counseling, and support. The guide is also available on the NJDHSS Web site.

A Pediatric Asthma Coalition, consisting of over 40 organizations, began meeting in January 2000. The primary goal of the Coalition, chaired by the American Lung Association of New Jersey (ALA), in collaboration with its medical section, the New Jersey Thoracic Society, is to promote the use of the National Heart, Lung and Blood Institute's Asthma Management Guidelines by schools, primary care providers, payers, parents and children. If new federal funds for asthma initiatives are made available to New Jersey, NJDHSS plans partnerships with community-based organizations and health care

providers in high-risk communities to reduce the burden of asthma. Particular emphasis will be placed on identifying, diagnosing and treating persons with asthma in urban settings as early as possible, to prevent or limit lung damage. Asthma is a chronic disease and generally requires preventive medication. NJDHSS will educate health care providers, patients and parents that asthma, in many cases, can be self-managed by the patient, with proper supports and the use of treatment guidelines. When a physician who is familiar with the treatment and individual circumstances of a patient with asthma is managing the condition on a routine basis, the probability of acute attacks, and the resulting need for emergency room treatment and/or hospitalization is reduced. At this time, NJDHSS can only track hospitalizations. A modernization of the hospital reporting system will allow monitoring of emergency room usage and diagnoses within several years. This will greatly enhance NJDHSS's ability to assess the effectiveness of asthma management in primary care settings.

Asthma is a major factor in school absenteeism. Currently there are no baseline data or a reliable data source for tracking the number of days of school lost due to asthma. Therefore, this issue is not included in this edition but represents an opportunity for development.

Year 2010 objectives should reflect the effectiveness of efforts by NJDHSS and others to prevent asthma, as well as better manage it.

RELATED OBJECTIVES

III. 3A Objective 1   -   Maintain the number of unhealthful days throughout the state, as determined by the National Ambient Air Quality Standards, attributable to carbon monoxide, coarse particulate matter, lead, sulfur dioxide, and nitrogen dioxide at zero.

III. 3A Objective 2   -   Reduce the number of unhealthful days attributable to ozone.

III. 4H Objective 1   -   Reduce the tuberculosis incidence rate per 100,000 population.

III. 5 Objective 3   -   Increase the proportion of NJDHSS *Healthy New Jersey 2010* objectives for which racial/ethnic sub-objectives are appropriate that can be tracked for all population groups.

ENDNOTE

[1] U.S. Department of Health and Human Services. *Healthy People 2010.* 2nd ed. With Understanding and Improving Health and Objectives for Improving Health Outcomes, 2 Vols. Washington, DC:, U.S. Government Printing Office, November, 2000, II: 24-4.

Control of communicable infectious diseases remains a fundamental component of public health programs throughout the world. Although experts predicted the need to focus public health on infectious diseases would diminish, these diseases remain major sources of morbidity and mortality in the United States. New infectious agents have been identified, and diseases that were once considered to be under control have reemerged as problems. Examples include: Cryptosporidium, which earlier in this decade in Milwaukee resulted in the largest outbreak of waterborne illness in United States history; widespread instances of food borne illness due to Escherichia coli; the recognition of hepatitis C as a major cause of chronic hepatitis responsible for liver cancer and the need for liver transplants; the occurrence of a subtype of avian influenza not previously associated with human illness; the occurrences of West Nile Virus never before found in the Western Hemisphere; and the emergence of Lyme disease in the Northeastern United States, a disease previously unknown. Compounding the problem is increasing resistance of a variety of infectious agents to antibiotics. Tuberculosis (TB) was once the leading cause of death in the United States. Improvements in nutrition, housing, sanitation, medical care and effective antibiotics dramatically reduced the number of cases and deaths. However, in the mid-1980s the trend toward TB elimination was reversed. A resurgence occurred due to the emergence of multiple drug resistant strains, the increase in the incidence of TB among immigrants and refugees, and the high risk of disease transmission posed by individuals with dual HIV/TB infection. The impact of uncontrolled infectious diseases can be catastrophic. For this reason, ongoing efforts to prevent the spread of such diseases is essential. For some infectious diseases, vaccines provide a cost-effective method of prevention. Year 2010 immunization objectives for young children and seniors (chapters 3B and 3G) are essential measures of New Jersey's effectiveness in controlling vaccine preventable infectious diseases. For diseases such as TB, efforts are concentrated on prompt identification and effective treatment of infectious and infected individuals, to reduce the risk of the disease being spread and the acquisition of multiple drug resistant TB.

Year 2010 objectives in this chapter are designed to measure New Jersey's success in implementing strategies related to tuberculosis and Lyme disease.

2010 Objectives

1. **Objective:** Reduce the tuberculosis incidence rate per 100,000 population to:

> **2.4** **for the total population**
> **1.3** **for whites**
> **5.3** **for blacks**
> **10.5** **for Asian or Pacific Islanders**
> **4.5** **for Hispanics**

Populations	1998 Baseline Data	Target	Percent Change	Preferred 2010 Endpoint	Percent Change
Total	7.9	2.4	-69.6	1.3	-83.5
White	4.3	1.3	-69.8	1.3	-69.8
Black	17.5	5.3	-69.7	1.3	-92.6
Asian/Pacific Islander	35.0	10.5	-70.0	1.3	-96.3
Hispanic	15.1	4.5	-70.2	1.3	-91.4

Source: New Jersey Department of Health and Senior Services, Division of Epidemiology, Environmental and Occupational Health

The incidence rate of tuberculosis in the total population in New Jersey increased steadily from 1986 through 1992, then declined steadily through 1999. Minorities are disproportionately affected by TB. Due to the way in which the data are collected persons in the "Hispanic" ethnic group are also included in any of the racial groups.

2.   **Objective:** Increase the percentage of tuberculosis patients who complete curative therapy within 12 months to **90.0 percent.**

Population	1997 Baseline Data	Target	Percent Change	Preferred 2010 Endpoint	Percent Change
Total	71.3	90.0	+26.2	95.0	+33.2

Source: New Jersey Department of Health and Senior Services, Division of Epidemiology, Environmental and Occupational Health

The measurement of completion of therapy is a long-accepted indicator of community TB control efforts. Interruption of therapy when symptoms begin to abate contributes to the development of multiple drug resistant strains of TB, as well as continued illness in the patient.

3.   **Objective:** Reduce the incidence of Lyme disease per 100,000 population to **6.5.**

Population	1998 Baseline Data	Target/Preferred 2010 Endpoint	Percent Change
Total	23.5	6.5	-72.3

Source: New Jersey Department of Health and Senior Services, Division of Epidemiology, Environmental and Occupational Health

Aside from a slight decrease in 1997, the number and rate of Lyme disease cases have been steadily rising in New Jersey since 1988. The method of diagnosis of Lyme disease prior to 1988 was less specific, generating data that are not comparable to subsequent data. Minority populations in New Jersey have a low incidence rate primarily due to very limited exposure to deer tick habitats; therefore, the data are not broken down by race or ethnicity.

Discussion

One of NJSHSS's most critical roles in controlling infectious diseases is surveillance. Providers and/or laboratories are required to report cases of thirty-eight specific communicable diseases to NJDHSS. In some instances, e.g., multiple cases of foodborne illness, the Department works with local health agencies to quickly identify source(s) of contamination and take corrective action. In other instances, for example when cases of meningitis or tuberculosis (TB) in congregate settings are identified, NJDHSS works with local agencies to identify people who have had contact with the infected person(s) and assure appropriate follow-up and preventive measures. In addition to using surveillance to conduct immediate follow-up when necessary, NJDHSS also uses surveillance data to monitor trends for longer term programmatic planning.

TB led to more deaths worldwide in 1999 than any other infectious disease. It is the world's leading cause of death for women ages 15 through 44, and kills more than 100,000 children each year. In the United States and New Jersey, TB infection rates declined steadily after the introduction of antibiotics, and this disease was for many years no longer considered a major health threat. In more recent decades, however, TB has once again become a problem, particularly multiple drug resistant forms of TB that are difficult to treat with antibiotics. Health agencies have had to renew their vigilance, as well as develop new strategies for controlling TB.

Nationally, TB cases increased by twenty percent between 1985 and 1992. From 1992 through 1999, the incidence of TB declined, with the most recent annual number of cases similar to the number before the resurgence. In New Jersey, between 1986 and 1992, the incidence of active TB increased 36 percent. After peaking in 1992, active TB cases statewide have since declined in each consecutive year. In 1999, there were 575 new TB cases, which represents a twenty percent decrease over 1997. Although the number of New Jerseyans with active TB is at its lowest ever, minorities are disproportionately affected. From 1986 through 1999, the active TB case rate among the minority population was much greater than that for the white population. In 1999, it was four times higher for Hispanics, five times higher for blacks, and ten times higher for Asian or Pacific Islanders. The higher risk for minority populations is most likely related to socioeconomic conditions, such as poor housing and nutrition,[1] access to health care, and a higher prevalence of other risk factors, such as HIV infection and drug use.

NJDHSS's TB program supports thirty-six chest clinics providing access throughout the state, which provide TB medications free of charge, medical consultation to providers through the New Jersey Medical School National TB Center at the University of Medicine and Dentistry of New Jersey in Newark, nursing/administrative consultation, and training for various health professionals.

The Department also assists state and county correctional facilities with TB surveillance and prevention activities. In addition, funding is provided to selected clinics to ensure that persons who have been diagnosed with TB or suspected TB complete a prescribed course of treatment. In these cases, outreach staff provide Directly Observed Therapy (DOT), i.e., they observe patients as they take their TB medications. This is required for all active TB cases and suspects at risk of spreading their disease to others for the initial part of their outpatient therapy or if they stop taking their self-administered medication. In more densely populated areas, most patients under clinic care stay on DOT for the entire length of their therapy (six to twelve months). Patients who stop taking their medication when their symptoms begin to subside are at risk of developing and spreading strains of TB that are resistant to multiple types of antibiotics. DOT has been proven to be effective in reducing TB morbidity as well as the number of cases of multiple drug resistant TB. In 1999, ninety percent of active TB cases supervised by the state's chest clinics were placed on DOT.

In addition to providing treatment, NJDHSS also funds investigations of reported and suspected TB cases where the potential of transmitting infection to others exists. Potentially-infected individuals who are identified through investigations can then be promptly screened for TB, and treated if necessary. In the event of a large-scale TB investigation in a setting where many people may have been exposed, such as a school or workplace, NJDHSS provides technical consultation and assistance to local health agencies.

Lyme disease is an infection caused by Borrelia burgdorferi, a type of bacterium called a spirochete that is carried by deer ticks, which are widely found in suburban and rural areas of New Jersey. An infected tick can transmit the spirochete to humans and animals it bites. If left untreated, the bacterium travels through the bloodstream, establishes itself in various body tissues and can cause many symptoms, including headaches, painful arthritis, swelling of the joints, cardiac abnormalities and cognitive disorders.

Since Lyme disease was first identified in the 1980s, the annual number of cases reported in New Jersey has increased steadily and substantially. In 1996, for example, there was a 28.6 percent increase in reported cases over 1995. It is not possible to determine how much of the recent increase may be due to increased awareness and subsequent improved diagnosis of Lyme disease, versus a genuine increase in incidence.

To date, prevention efforts by the NJDHSS, local health departments and other health providers have focused on tick control and encouraging the use of personal protection against ticks. The Department has developed informational pamphlets, also available on its Web site, to educate the public on personal protection measures. NJDHSS has also developed a guide for New Jersey physicians on Lyme and other tickborne diseases. In 1998 the federal Food and Drug Administration approved a new vaccine to prevent Lyme disease. The vaccine is approved for individuals between the age of 15 and 70 and is recommended for those individuals at high risk for infection (e.g., outdoor workers in endemic areas). This vaccine requires a series of three injections over a twelve month period to reach the peak immunity level. At this level, the vaccine is estimated to prevent close to eighty percent of the infections that would have occurred without the vaccine. As this vaccine becomes widely available in New Jersey, and individuals continue to practice personal protection in high risk areas, the incidence of Lyme disease should decrease.

ENDNOTE

[1] Centers for Disease Control and Prevention (CDC). A strategic plan for the elimination of tuberculosis in the United States. *Morbidity and Mortality Weekly Report*. 38(S-3):1-25, 1989.

Today, sexually transmitted diseases (STDs) are among the most common infectious diseases in the United States, particularly affecting adolescents and minorities. Despite the preventable nature of STDs, they are a significant health threat. This is due to the fact that symptoms of these diseases may be difficult to recognize, many people are unaware of the symptoms, and social stigma often prevents individuals from seeking medical care. STDs can have long term negative health consequences for women, increasing the likelihood of infertility, pelvic inflammatory disease, tubal pregnancy, and cervical cancer. Effective prevention and treatment strategies will reduce STDs in New Jersey. To that end, the year 2010 objectives focus on reducing the incidence of chlamydia, gonorrhea and syphilis.

2010 Objectives

1. **Objective:** Reduce the rate of chlamydia trachomatis infections among females aged 15 through 19 to **950** per 100,000.

Populations	1998 Baseline Data	Target	Percent Change	Preferred 2010 Endpoint	Percent Change
Females 15-19	1,873.8	950.0	-49.3	500.0	-73.3

Source: New Jersey Department of Health and Senior Services, Division of Epidemiology, Environmental and Occupational Health

Chlamydia is the most common sexually transmitted bacterial pathogen in the United States. The incidence among teenage females aged 15 through 19 is substantially higher than the rate for the total population.

2. **Objective:** Reduce the prevalence of chlamydia trachomatis infections among persons 15 through 24 years old to:

3.0   percent for persons attending STD clinics
12.0   percent for persons attending Family Planning clinics

Populations	1998 Baseline Data	Target	Percent Change	Preferred 2010 Endpoint	Percent Change
STD clinic patients	5.4	3.0	-44.4	3.0	-44.4
Family planning patients	23.9	12.0	-49.8	3.0	-87.4

Source: New Jersey Department of Health and Senior Services, Division of Epidemiology, Environmental and Occupational Health

Left untreated, chlamydia may lead to serious complications including pelvic inflammatory disease (PID), infertility, and ectopic pregnancy.

3.   Objective: Reduce the incidence of gonorrhea per 100,000 population to:

30.0   for the total population
325.0   for persons 15-19 years
325.0   for females 15-19 years

Populations	1998 Baseline Data	Target	Percent Change	Preferred 2010 Endpoint	Percent Change
Total	96.8	30.0	-69.0	19.0	-80.4
Persons 15-19	452.6	325.0	-28.2	186.7	-58.7
Females 15-19	622.7	325.0	-47.8	186.7	-70.0

Source: New Jersey Department of Health and Senior Services, Division of Epidemiology, Environmental and Occupational Health

The incidence rate of gonorrhea in the total population had been declining until 1995, when it began rising again. This apparent increase is likely due to improvements in the surveillance system in 1995 from a provider-based to a laboratory-based system. The 1998 rate was slightly lower than the rate in 1996.

4.   Objective: Reduce the incidence of primary and secondary syphilis per 100,000 population to:

0.5   for the total population
0.2   for whites
1.2   for all other races

Populations	1998 Baseline Data	Target	Percent Change	Preferred 2010 Endpoint	Percent Change
Total	1.3	0.5	-61.5	0.2	-84.6
White	0.4	0.2	-50.0	0.2	-50.0
All Other Races	4.7	1.2	-74.5	0.2	-95.7

Source: New Jersey Department of Health and Senior Services, Division of Epidemiology, Environmental and Occupational Health

Since 1990, the incidence rate of primary and secondary syphilis for the population as a whole has been declining. Stratifying by race to produce black, Asian or Pacific Islander and Hispanic incidence rates may yield inaccurate data, due to a high proportion of cases where race is not reported. The minority rate, despite its decline, is more than eleven times the rate for whites.

5.   **Objective:** Reduce the incidence of congenital syphilis per 100,000 live births to:

25.0   for the total population
10.9   for whites
69.6   for all other races

Populations	1998 Baseline Data	Target	Percent Change	Preferred 2010 Endpoint	Percent Change
Total	77.2	25.0	-67.6	10.9	-85.9
White	32.3	10.9	-66.3	10.9	-66.3
All Other Races	198.6	69.6	-65.0	10.9	-94.5

Source: New Jersey Department of Health and Senior Services, Division of Epidemiology, Environmental and Occupational Health

Rates have fluctuated from year to year with a low of 33.8 in 1991 and a high of 153.0 in 1994. Rates for minorities have remained consistently higher than those for the total and white populations.

Discussion

Great progress has been made toward reducing the burden of the most common bacterial STDs in the United States, such as gonorrhea and syphilis. Nevertheless, STD-related complications continue to take a heavy toll, particularly on women's health and health care costs. NJDHSS uses surveillance, prevention and treatment approaches to control STDs. To strengthen its surveillance of STDs, NJDHSS in 1995 began requiring laboratories to report test results directly to the Department. Positive test results and untreated individuals are sent to one of three regional STD offices and one of forty-five STD clinics throughout the 21 counties of New Jersey for treatment verification, partner notification and diagnostic services. These clinics provide not only treatment services, but also screening and diagnosis. NJDHSS also funds education and screening services in a variety of other public health settings.

In 1999, chlamydia was the most commonly reported communicable disease in the United States, with 660,000 cases reported. It is estimated that four million new chlamydia infections occur in the United States every year, and of these, 2.6 million occur among women. Chlamydia is especially common among sexually active adolescents and young adults. In New Jersey, chlamydia infection is about twice as common among adolescents as gonorrhea. In 1996, eighty-three percent of the chlamydia cases reported in New Jersey were in persons aged 15 through 29 years. The highest rate was observed in those 15 through 19 years of age. The incidence has appeared to increase in recent years, although this may be an artifact of a revised reporting system.

When diagnosed, chlamydia can be easily treated and cured. Untreated, chlamydia can cause serious complications that include pelvic inflammatory disease (PID), which is a major cause of infertility and potentially a cause of fatal tubal pregnancy. Chlamydia may also result in adverse birth outcomes, including neonatal conjunctivitis (eye infection) and pneumonia. In addition, research has shown that women infected with chlamydia have a three-to-five fold increased risk of acquiring HIV, if exposed.[1] Therefore the annual screening of sexually active women is recommended as part of routine primary care visits. In addition to screening and treatment provided by physicians in private practice,

New Jersey also makes publicly funded chlamydia screening available to all women 24 years of age and younger who use family planning agencies. Screening services are also available for women 29 years of age or younger in seven cities which have STD rates higher than the state rate: Atlantic City, Camden, Trenton, Elizabeth, Newark, Jersey City and Paterson. Annually, approximately 60,000 women are screened for chlamydia through the Infertility Prevention Project Initiative.

The incidence rate of syphilis in the United States is at its lowest level in 20 years, with only 70,000 newly reported cases annually. Infection levels remain so low that the Centers for Disease Control and Prevention suggests it is possible to eliminate syphilis in the United States. In New Jersey, the total number of reported syphilis cases has declined annually since 1991. From 1995 to 1998, the reported incidence decreased by 769 cases, from 1,518 to 749. Statewide, from 1990 to 1998 the reported rates of primary and secondary syphilis declined by 94.1 percent. Some experts have suggested that this decline may be a direct result of sexual behavior changes in response to concerns with HIV/AIDS. In 1996, the highest reported rates of primary and secondary syphilis were observed in individuals aged 20 through 39 years. Currently, the disease is most common among those populations that have traditionally been hard to reach, such as low-income individuals. Neonatal and prenatal positive screening results reported to NJDHSS have the highest priority when referred to one of the three regional STD offices for follow-up, treatment verification and diagnostic services.

During the past decade, the annual incidence of gonorrhea steadily declined in New Jersey until 1995 and 1996, when it increased. This apparent reversal may be the result of the change in the reporting system from primarily provider reports to direct laboratory reporting to NJDHSS. Despite this recent upward turn in gonorrhea rates, the incidence rate declined almost 60 percent between 1985 and 1996. Most importantly, the 1997 data indicate a decrease in the incidence compared to the 1996 rates. However, gonorrhea remains a major cause of pelvic inflammatory disease, infertility, ectopic pregnancy and chronic pelvic pain for women in New Jersey.

Much work remains to be done to reduce STD rates. NJDHSS will continue to make STD surveillance, prevention and treatment a priority.

ENDNOTE

[1] Centers For Disease Control and Prevention (CDC). *Some Facts About Chlamydia: March, 1997.* Atlanta, GA: U.S. Department of Health and Human Services, CDC, National Center for HIV, STD and TB Prevention, 1997. <http://www.cdc.gov/nchstp/dstd/chlamydia_facts.htm>

Healthy New Jersey 2010

Volume II:

New Jersey's Public Health Agenda
    < Strengthening Public Health Capacity

Public health capacity is defined as the ability of public, private, federal, state and local entities to collectively prevent disease and injury and promote health. While health is addressed by many private providers and organizations as well as public agencies, it is government's unique responsibility to assure the public's health. The 1988 Institute of Medicine report *The Future of Public Health*[1] sets forth three core functions of a health agency. These are assessment of health status, health resources and population demographics within a community; comprehensive health policies and plans to improve health status; and assurance that quality personal health and public health services are provided efficiently and effectively. Based on this report, a national task force developed a consensus of ten essential public health services[2] that should be available to all citizens:

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

In a statewide system, both state and local public health agencies have important roles and responsibilities. In general, it is NJDHSS's responsibility to provide leadership and to establish statewide policies that preserve the public's health. NJDHSS accomplishes this by regulating the quality of health care facilities and managed care plans, by funding essential public health services provided by a wide variety of local agencies, by identifying and responding to threats to public health, and by collecting, analyzing and reporting health data. In recent years NJDHSS has placed greater emphasis on disseminating health data to assist the public in making informed choices as well as to support health services planning and research by public and private entities.

Local health agencies are responsible for monitoring and improving health in their communities by providing leadership in assessing and addressing health problems through concerted efforts involving many public and private parties. Over the years, New Jersey's local public health infrastructure has not kept pace with the times. NJDHSS is working to re-engineer and modernize New Jersey's public health infrastructure to better serve the goals of promoting health and preventing disease. In September of 1997, a State Public Health Task Force adopted the ten essential public health services as the context through which new public health practice standards for New Jersey's public health agencies should be developed.

NJDHSS plans to take advantage of the widespread and growing use of electronic information technology to enable state and local public health agencies to accomplish their mission more efficiently and effectively. Year 2010 objectives focus on increasing the timeliness and comprehensiveness of the data that drive public health policy-making in New Jersey; communicating these data to the public as well as to other key components of the health system; and building the capacity of the state's local health system to access and use information to promote the health of their communities.

2010 Objectives

1. **Objective (Developmental):** Increase the proportion of Healthy New Jersey 2010 objectives for which state data are released within one year of the end of data collection by 100%.

Source: New Jersey Department of Health and Senior Services, Health Information Steering Committee

It is inevitable that there will be lags between the occurrence of events and their collection and reporting in health data systems, but use of enhanced technologies and revised procedures can shorten lag times and make data available in a more timely fashion to the public and those organizations that use data for health assessment and planning.

2. **Objective (Developmental):** Increase the use of standardized geocoding in all major NJDHSS health data systems to promote the development of geographical information system (GIS) capability to **100 percent**.

Source: New Jersey Department of Health and Senior Service, Office of Information Technology Services

A fundamental prerequisite to good epidemiology and health planning is accurate data indicating where key health events are taking place, e.g. which communities have disproportionately more low birthweight babies, etc. In New Jersey, the widespread use of postal addresses that do not always correspond to political jurisdictions of residence makes it particularly challenging to correctly link health data with a municipality. Improvements and standardization of the way health data are collected and processed will enhance NJDHSS's ability to provide accurate county and local health data.

3. **Objective (Developmental):** Increase the proportion of NJDHSS *Healthy New Jersey 2010* objectives for which racial/ethnic subobjectives are appropriate that can be tracked for all population groups to **100 percent**.

Source: New Jersey Department of Health and Senior Services, Center for Health Statistics

Despite national data indicating that some racial and ethnic groups often face higher rates of illness, disability, death or other risk factors than the general population, reliable race and ethnicity data for all population groups are not available for many state health objectives.

4. **Objective (Developmental):** Increase the proportion of non-confidential NJDHSS health data that is made readily available to the public.

Source: New Jersey Department of Health and Senior Services, Office of Policy & Research, Health Information Steering Committee

In recent years NJDHSS has increased the number of reports derived from its health surveillance systems, and makes these reports available in both hard copy and via the Internet. NJDHSS expects to expand the data available and accessible to individuals and organizations.

5. **Objective:** Increase the percentage of local health departments that perform the following core public health functions to:

75.0   percent for Assessment
75.0   percent for Policy Development
90.0   percent for Assurance

Functions	1998 Baseline Data	Target	Percent Change
Assessment	51.9	75.0	+44.5
Policy Development	55.1	75.0	+36.1
Assurance	73.7	90.0	+22.1

Source: New Jersey Department of Health and Senior Services, Office of Local Health

The three core functions of public health are assessment, policy development, and assurance. Not all local health agencies in New Jersey have the capacity to perform these functions. The target reflects an expectation that local capacity will be greatly enhanced.

6a. **Objective (Developmental):** Increase the percentage of local health departments that have actively participated in developing a county-wide community health plan that identifies improved health outcomes to **80.0 percent.**

Source: New Jersey Department of Health and Senior Services, Office of Local Health

6b. **Objective (Developmental):** Increase the percentage of county-wide public health partnerships which produce one initial health plan and two updates by 2010 to **100.0 percent.**

Source: New Jersey Department of Health and Senior Services, Office of Local Health

Engaging the community in assessing health problems, prioritizing issues, determining effective strategies and evaluating outcomes is key to improving health outcomes. Baseline data will be established in 2001 and data will be available for analysis in 2002 or 2003.

7a. **Objective:** Increase the percentage of local health departments that have workplace access to the Internet to **100.0 percent.**

Population	1999 Baseline Data	Target	Percent Change
Local health departments	65.7	100.0	+52.2

Source: New Jersey Department of Health and Senior Services, Office of Local Health

7b. **Objective:** Increase the percentage of local health departments that participate in the Local Information Network and Communication System (LINCS) public health information system in their respective counties to **100.0 percent.**

Population	1999 Baseline Data	Target	Present Change
Local health departments	60.6	100.0	+65.0

Source: New Jersey Institute of Technology

Local health agencies' capacity to perform health surveillance, contain conditions that threaten the public health, and other emergency response functions is greatly enhanced, particularly in terms of timeliness, when they are electronically connected to NJDHSS and other local agencies through the LINCS system, and to a wide array of information via the Internet.

8. **Objective (Developmental):** Increase the percentage of local health departments that satisfy staff expertise/competencies defined in NJDHSS public health performance standards to **90.0 percent.**

Source: New Jersey Department of Health and Senior Services, Office of Local Health

Baseline data will be established in 2001 and data will be available for analysis in 2003 or 2004.

9. **Objective (Developmental):** Increase the percentage of local health departments that satisfy NJDHSS public health performance standards for public health and environmental laboratory services to **90.0 percent.**

Source: New Jersey Department of Health and Senior Services, Office of Local Health

Baseline data will be established in 2001 and data will be available for analysis in 2002.

10. **Objective (Developmental):** Increase the percentage of local health departments that satisfy NJDHSS public health performance standards for epidemiology services to support core functions and essential public health services to **90.0 percent.**

Source: New Jersey Department of Health and Senior Services, Office of Local Health

It is not expected that each local health department provide these services, but rather have access to them through a public health infrastructure agency to be defined in the Public Health Practice Standards. Baseline data will be established in 2001 and data will be available for analysis in 2002.

Discussion

Increasing access to health information by the public at large, as well as those people and organizations best able to promote healthy behaviors, self-care, and informed health care choices is a priority for NJDHSS. For example, in addition to annual reports on vital statistics that have been provided for many years, the Department now also gives health care consumers information on the quality of health care plans and providers, to facilitate their making informed choices. In 1997, NJDHSS released its first annual report on managed care plans. This report compared how well these

plans deliver quality health care and customer service. The report focused on key measures of access, service, satisfaction with providers, assisting plan members in staying healthy as well as treating them when they are ill, and caring for children. The annual report now covers more types of managed care plans. Several of the measures in the managed health care report have been used to construct year 2010 objectives as well.

In 1997, NJDHSS also released (both in hard copy and via Web site) its first report on the quality of hospitals and surgeons performing coronary artery bypass graft surgery, and followed this report with updates in 1999 and 2000. There has already been evidence to suggest that publication of these data in New Jersey is having a similar effect as that observed in New York, which began publishing comparable reports several years earlier. The reports promote vigorous self-policing and quality improvement by hospitals, resulting in reductions in mortality from this type of surgery. NJDHSS is exploring cost-effective ways to collect, analyze and publish a broader range of hospital quality data.

In 1998, NJDHSS also produced its first report detailing how well each nursing home in the state performed on a number of quality measures. This report was a first for NJDHSS in that it is provided only via the Web site, and allows some interactive selection of parameters so that consumers can focus on nursing homes in particular geographic areas of interest to them.

In response to heightened public concern and interest in cancer, NJDHSS has also increased its analysis and publication of reports detailing trends in cancer. Recent reports were published on overall cancer incidence in New Jersey, cancer incidence by county, breast cancer incidence and mortality, trends in childhood cancer, trends in prostate cancer and cancer incidence among Hispanics.

Quarterly reports on the trends in HIV/AIDS infection have also been available since 1996. The Department also produces periodic updates on its progress toward the state's *Healthy New Jersey 2000* objectives.

As a matter of policy, NJDHSS now designs as many of its reports as possible for simultaneous release via the Web site and hard copy. Currently, the Cancer Registry and the Center for Health Statistics offer public use data sets via the Internet. The Department realizes that it could do much more, however, including routinely releasing non-confidential data sets via its Web site for ready access by academic researchers, health planners, and other interested parties. Considerable work must be done before NJDHSS will be able to provide ready access to data in a consumer-friendly fashion. For example, one very important data set for analyzing health services trends is collected from hospitals and includes information on costs and diagnoses for all patients admitted for treatment. Currently, there is a considerable lag in the collection of these data. With the introduction of an electronic reporting system, however, the data will not only be more timely, but also eventually expanded to cover outpatient and emergency department (ED) cases. The latter will allow, for example, tracking of ED visits for asthma treatment, an indicator of the success or failure to manage asthma to prevent acute crises. NJDHSS is committed to making similar improvements in timelines and accessibility in as many of its major health data systems as possible.

There are also some very technical, but very important changes NJDHSS must make in its data collection to enhance the usefulness of these data for policymaking and programmatic planning. For many of the *Healthy New Jersey 2010* objectives, data and targets for smaller population groups and for Hispanic subpopulations are listed as not statistically reliable, not analyzed or not available. From the federal government level on down there have been long-standing problems of lack of standardization in the definition of race and ethnicity, as well as in the reporting of data. The federal government has tackled the standardization issue, and is requiring that, by the year 2003, all federal agencies as well as agencies

receiving federal funding conform to the revised federal standard for reporting of race and ethnicity. The new standard will bring complications of its own, however, in that it will allow individuals to identify themselves as more than one race. There is not yet consensus on how to count such individuals for purposes of measuring racial differences in health status.

In addition to standardization issues, however, there are also reporting problems. There are many different sources for NJDHSS data, including hospitals, physicians, funeral directors, agencies receiving grants, and laboratories. It is an ongoing challenge to encourage all reporting sources to record data on race and ethnicity completely and accurately. Currently, the Asian or Pacific Islander population group and Hispanic ethnicity are underreported in some data systems. NJDHSS will work not only to improve reporting in the future, but also will explore ways to adjust existing data, in order to develop reliable estimates for disease morbidity and mortality among all populations in New Jersey.

A second technical change concerns geocoding. Effective epidemiology and health planning requires that health data correctly reflect the residence of the populations affected. NJDHSS and other state agencies are exploring ways to standardize approaches to geocoding, and to use computer software to correct address anomalies. Reporting health data below the county level will result in the need to address issues of data reliability, validity, comparability and confidentiality and privacy.

Expanding Local Health Capacity

New Jersey has 116 local health departments, which provide public health services to more than eight million people in the State. In 1998, NJDHSS found in a study of the State's 116 local health departments that there is great variation in the depth and breadth of public health services they offer. Local health departments are configured in various ways, and have differing types of public oversight, including county, regional, and municipal arrangements. They are funded in various ways, have different types and number of personnel, and offer different mixes of services. This variety presents a challenge in providing public health services in a coordinated, systematic, cost-effective and efficient manner. The NJDHSS study noted that planning, epidemiology, and communicable disease prevention are among the key areas where local health agencies need more capacity.

As noted in the Institute of Medicine's report on public health, there is a consensus among experts that government public health agencies have three primary responsibilities: assessing health status and needs for the community served, as well as community resources and capacity; developing public policies to address priority needs; and assuring access to and quality of needed health services. While local health agencies' responsibilities in each of these three areas will necessarily differ from NJDHSS's, they also presume in-depth knowledge of and engagement in the local community. The 1998 NJDHSS study of local health department capacity revealed that the performance of these core functions falls below desired levels. Only fifty-two percent of local departments perform assessment, fifty-five percent policy development and seventy-four percent assurance. To address this concern, NJDHSS is revising the regulations governing recognized public health activities and standards of performance for local boards of health. The new public health practice standards will require local health departments to adequately address all three core functions. The standards will be developed through the regulatory process and provide opportunity for public comment. By the year 2010, there should be a substantial increase in the number of local health departments performing these core functions adequately.

Planning provides the foundation for successful organizations and activities, and is central to improvement. NJDHSS supports development by local health departments of county-wide community health improvement plans. Planning by communities in isolation from each other is not effective. New Jersey's complex local public health system reflects the state's many municipalities and tradition of "home rule". It has resulted in inconsistency in local health planning and services. A broader, county-wide and more collaborative approach to health planning will be encouraged in the revised standards of performance for local health departments. All community stakeholders should be involved in the process. This will undoubtedly help New Jersey achieve its year 2010 objectives of at least eighty percent of local health departments participating in county-wide community health planning. Community health planning should be based on structured formal community assessments where local needs can be addressed within the constraint of available resources. This will result in more effective and efficient public health services, and hopefully improved health for New Jerseyans.

The Department will continue to strengthen local health departments' capacities. In 1997, NJDHSS introduced New Jersey LINCS, a statewide system of twenty-four strategically positioned local health departments with electronic linkages to NJDHSS, other local health departments, health care facilities, and emergency response organizations. LINCS will provide access to the most up-to-date health information, disease surveillance data, and mechanisms supporting rapid response to incidents which threaten the public's health. It also will facilitate coordinated health planning. By coupling LINCS with the Internet, local health departments gain access to a wealth of information, as well as education and training opportunities through the NJDHSS Distance Learning Network. Currently, the Distance Learning Network consists of a series of satellite video-conferencing downlink sites in each county that can receive broadcasts for education and training purposes. In the future, training should also be available via the Internet, eliminating the need to travel to the downlink site. By year 2010, NJDHSS expects all local health departments to have access to LINCS and the Internet.

Local health department capacity will be further developed through the Public Health Preparedness and Response for Bioterrorism grant awarded to NJDHSS in August 1999 from the Centers for Disease Control and Prevention. This grant will expand LINCS Internet connections to all local health departments in the state, and will drive the identification and addressing of gaps in New Jersey's public health system, especially for surveillance, public health emergency communications and response. The grant also provides funds for training local and state public health workers in information technology and public health response for catastrophic events related to broad-scale infectious disease threats. Building such capacities will enhance the public health system's ability to effectively respond to any other statewide public health disasters, and to assist communities in recovery from disasters.

Public health agencies must assure that their staff have the skills and expertise to keep pace with the continually changing nature of public health practice. New Jersey has had a licensure program for its local health officers and registered environmental health specialists for nearly one hundred years, and is the only state in the nation that requires licensure of its local health officers. In 1998, NJDHSS strengthened this program by establishing requirements for the continuing education of these public health professionals as a condition of annual license renewal. Other local health professionals must have specific academic training, and public health nurses must have a Registered Nurse license. NJDHSS intends to review continuing education and training for the State's public health nurses and health educators, and other professionals as well. By the year 2010, ninety percent of local health departments should satisfy the latest performance standards for staff expertise and competencies.

Public health agencies require access to laboratories capable of providing the specialized services needed to assure safe water and food, monitor lead and other environmental exposures, and identify outbreaks of infectious disease in their communities. Local health departments largely rely on contracts with laboratories that are often limited in their capacity to perform the specialized tests needed. NJDHSS is exploring strategies to assure local health departments have access to appropriate laboratory services, such as those provided by the NJDHSS Public Health and Environmental Laboratory.

Without access to epidemiological expertise in analyzing laboratory and disease surveillance data, health agencies are limited in their ability to plan and target their resources in the way most beneficial to their communities. Epidemiology services are also essential to effective emergency response to diseases and conditions that threaten the public's health. NJDHSS is exploring ways to make comprehensive epidemiology services accessible to all local health departments. The Department anticipates that partnership arrangements among all local health departments in each county will be used to assure the availability and affordability of laboratory and epidemiological services. By the year 2010, ninety percent of local health departments are expected to have access to these services.

The Department through its public health practice standards initiative is in the process of defining state and local roles and has included county-wide planning as part of the standards. In addition, the NJDHSS has begun a process of examining its categorical programs in order to coordinate and integrate its functions and activities into a planning process that will strengthen the statewide system. Public health capacity is dependent on a complex array of governmental public health bodies, non-governmental entities, service delivery agencies, such as managed care organizations, hospitals, researchers, schools, universities, and faith-based organizations. NJDHSS looks forward to working more closely with many health partners to find innovative and practical strategies to address public health problems.

ENDNOTES

[1] Institute of Medicine, Committee for the Study of the Future of Public Health. *The Future of Public Health*. Washington, DC: National Academy Press, 1988.

[2] Public Health Functions Steering Committee. *Public Health in America*. Fall 1994. <http://www.health.gov/phfunctions/public.htm>.

Healthy New Jersey 2010

APPENDICES

Appendix A.
Abbreviations and Acronyms

4-3-1 Series -- 4 doses of DTaP vaccine + 3 doses of polio vaccine + 1 dose of MMR vaccine

AAA -- Automobile Association of America

ACS -- Ambulatory Care Sensitive (Condition)

ADADS -- Alcohol and Drug Abuse Data System

ADDP -- AIDS Drug Distribution Program

AIDS -- Acquired Immune Deficiency Syndrome

ATSDR -- Agency for Toxic Substances and Diseases Registry

BMI -- Body Mass Index

BRFSS -- Behavioral Risk Factor Surveillance System

CABG -- Coronary Artery Bypass Graft

CCIS -- Children's Crisis Intervention Service

CDC -- Centers for Disease Control and Prevention

CN -- Certificate of Need

CQI -- Continuous Quality Improvement

DOT -- Directly Observed Therapy

DRE -- Digital Rectal Examination

DTaP -- Diphtheria, Tetanus, and acellular Pertussis (Vaccine)

DUI -- Driving Under the Influence

EASE -- Easy Access, Single Entry

EPA -- United States Environmental Protection Agency

ER -- Emergency Room/Emergency Department

ESHI -- Employer-Sponsored Health Insurance

ESPA -- Elementary School Proficiency Assessment

ESRD -- End-Stage Renal Disease

FARS -- Fatal Accident Reporting System

FDA -- United States Food and Drug Administration

FMBA -- Firemen's Mutual Benevolent Association

FOBT -- Fecal Occult Blood Test

GEPA -- Grade Eight Proficiency Assessment

HBV -- Hepatitis B Virus

HCBS -- Home and Community Based Services

HEDIS -- Health Plan Employer Data and Information Set

HHS -- United Stated Department of Health and Human Services

Hib -- *Haemophilus Influenzae* type b

HIV -- Human Immunodeficiency Virus

HMO -- Health Maintenance Organization

HSPA -- High School Proficiency Assessment

Appendix A.
Abbreviations and Acronyms

IAFF	--	International Association of Firefighters
ICD-9	--	*International Classification of Diseases, Ninth Revision*
ICMS	--	Integrated Case Management Services
IDDM	--	Insulin-Dependent Diabetes Mellitus
IDU	--	Injecting Drug User
IFSS	--	Intensive Family Support Services
LINCS	--	Local Information Network and Communication System
MCO	--	Managed Care Organization
MDS	--	Minimum Data Set
MMR	--	Measles, Mumps, and Rubella (Vaccine)
N/A	--	Not Available
NCI	--	National Cancer Institute
NICU	--	Neonatal Intensive Care Unit
NIDDM	--	Non-Insulin Dependent Diabetes Mellitus
NIOSH	--	National Institute for Occupational Safety and Health
NJBCCCI	--	New Jersey Breast and Cervical Cancer Control Initiative
NJCCR	--	New Jersey Commission on Cancer Research
NJDEP	--	New Jersey Department of Environmental Protection
NJDHS	--	New Jersey Department of Human Services
NJDHSS	--	New Jersey Department of Health and Senior Services
NJDOE	–	New Jersey Department of Education
NJLPS	--	New Jersey Department of Law and Public Safety
NJPRO	--	New Jersey Peer Review Organization
NPL	--	National Priorities List
OSHA	--	Occupational Safety and Health Administration
PACT	--	Programs for Assertive Community Treatment
PEOSH	--	Public Employees Occupational Safety and Health (Program)
PID	--	Pelvic Inflammatory Disease
SAMMEC	--	Smoking-Attributable Mortality, Morbidity, and Economic Costs
SED	--	Serious Emotional Disturbance
SIC	--	Standard Industrial Classifications
STD	--	Sexually Transmitted Disease
TANF	--	Temporary Aid to Needy Families
TB	--	Tuberculosis
TBI	--	Traumatic Brain Injury
USDA	--	United States Department of Agriculture
WHO	--	World Health Organization
WIC	--	Women, Infants, and Children (Program)
YPLL	**--**	Years of Potential Life Lost
ZDV/AZT	**--**	Zidovudine, formerly Azidothymidine (an AIDS drug)

Active Case of Tuberculosis -- also referred to as a new verified case of tuberculosis. These cases are characterized by (1) any bacteriological confirmation of the presence of Mycobacterium tuberculosis or (2) in the absence of bacteriological confirmation, for a diagnosis of active pulmonary tuberculosis the patient must present a positive purified protein derivative (PPD), or must exhibit a positive chest x-ray, or in the case of children, must be epidemiologically linked to another active case of tuberculosis. In the case of extrapulmonary tuberculosis, the patient must show signs of clinical improvement while taking tuberculosis medication.

Birth Weight -- the first weight of the fetus or newborn obtained after delivery. Birth weight is recorded in grams.

Cause of Death Classification -- a system of specification of the diseases and/or injuries which led to death and the sequential order of their occurrence. The version of the system in use through 1998 is the *International Classification of Diseases, Ninth Revision* (1977), sponsored by the World Health Organization.

Infant Death -- death within the first year of life.

Life Expectancy -- the expected number of years to be lived, on average, by persons born in the year analyzed.

Live Birth -- the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of pregnancy, which, after such separation, breathes or shows any evidence of life, such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles.

Low Birth Weight -- birth weight of less than 2,500 grams or approximately 5 pounds, 8 ounces. Prior to 1989, New Jersey defined low birth weight as 2,500 grams or less.

Motor Vehicle-Related Fatalities -- Motor vehicle-related fatalities is a broad term encompassing a number of different types of motorized vehicles and a variety of circumstances covering an encounter of an individual with a motorized vehicle. A motor vehicle is defined in *Manual of the International Statistical Classification of Diseases, Injuries, and Causes of Death, Volume 1* as "any mechanically or electrically powered device, not operated on rails, upon which any person or property may be transported or drawn upon a highway. Any object such as a trailer, coaster, sled, or wagon being towed by a motor vehicle is considered a part of the motor vehicle". The Manual includes automobile; bus; construction, industrial or farm machinery; fire engine; motorcycle; moped; motorized scooter; trolley bus not operating on rails; truck; and van in its definition of motor vehicle. Persons killed or injured by a motor vehicle can be drivers, passengers, bicyclists, or pedestrians. Injuries and fatalities related to the use of motor vehicles are not currently labeled "accidents" by public health professionals, as these events are considered preventable.

Stages of Syphilis (Larsen and Kraus, 1990):
Primary Syphilis -- begins within approximately 30 hours after infection; a primary chancre usually forms within two through six weeks of infection. Both treponemal and nontreponemal antibodies appear one through four weeks after the lesion has formed. Even without treatment, the lesion usually resolves within two months.
Secondary Syphilis -- occurs within six weeks of healing of the primary lesion. Disseminated lesions appear that are attributable to systemic infection. Virtually every organ and tissue of the body are affected. Whether treated or untreated, the lesions of secondary syphilis usually resolve within two through ten weeks.

Trimester of Pregnancy -- the first trimester includes the first 12 weeks of pregnancy, the second trimester encompasses the thirteenth through twenty-fourth weeks and the third trimester is the period after the twenty-fourth week through delivery.

Underlying Cause of Death -- the disease or injury which initiated the train of events leading directly to death or the circumstances of the unintentional injury or violence which produced the fatal injury. Most of the cause-of-death data in this report relate to the underlying cause of death coded from the death certificate by NJDHSS staff, however deaths from falls and from traumatic brain injury were obtained from the multiple cause of death file.

Very Low Birth Weight -- birth weight of less than 1,500 grams or approximately 3 pounds, 5 ounces.

Appendix C.
Data Precision

Data based on a small number of observations tend to be unreliable and may vary dramatically from year to year. This is true for data which are the result of complete counts, as well as those obtained through sampling of a larger population. In addition to random variation, survey data are subject to sampling errors, which are expressed as standard errors (s.e.'s). Standard errors are available only for selected estimates used as baseline data for objectives included in *Healthy New Jersey 2010*. Estimates from the New Jersey Behavioral Risk Surveillance System have standard errors provided, while the health insurance coverage estimates from the Current Population Survey and the estimates of tobacco, drug and alcohol use from the respective surveys of middle and high school students have not had standard errors computed.

Standard errors tend to be larger for estimates based on small sample sizes. When responses from the total sample are subdivided into smaller subgroups, the resulting estimates for the smaller subgroups, in particular, may be based on a small number of responses. In this document, baseline estimates which use the Behavioral Risk Factor Surveillance System as the data source have been marked with one or more asterisks when the relative standard error exceeded the following criteria:

BRFSS Estimate	Flag (One Asterisk)	Suppression (Two Asterisks)
50%/50%	s.e. > 2.0%	s.e. > 6.0%
40%/60%	s.e. > 2.0%	s.e. > 6.0%
30%/70%	s.e. > 2.0%	s.e. > 6.0%
20%/80%	s.e. > 1.5%	s.e. > 5.5%
10%/90%	s.e. > 1.0%	s.e. > 4.0%
5%/95%	s.e. > 1.0%	s.e. > 2.5%

For example, an estimate from the Behavioral Risk Factor Surveillance System of 40 percent of respondents who reported a particular health behavior would be marked with one asterisk if the standard error exceeded 2.0 percent and with two asterisks if the standard error was more than 6.0 percent. Estimates from BRFSS that fall between the stated estimates in the chart would be interpolated between the adjacent categories. For example, an estimate of 25 percent would receive one asterisk if its s.e. exceeded 1.75 percent and two asterisks if its s.e. was more than 5.75 percent. The criteria in the table were derived in part from criteria used by the National Household Survey of Drug Abuse conducted in 1994. Caution should be exercised when drawing conclusions for those estimates with relative standard errors exceeding the above limits. In particular, assessments of the statistical significance of differences between groups or in one population's estimate over time must take into account the relative standard errors.

Appendix D.
Rates and Ratios

The presentation of vital statistics in the form of rates and ratios facilitates comparisons between political subdivisions with populations of different sizes or between subgroups of a population. Crude rates are calculated by dividing the number of events of a type that occur to the residents of an area (e.g., births or deaths divided by the resident population of an area or subgroup). The events are limited to those that occur within a specific time period, usually a year, and the population is, in general, the mid-year estimate of the resident population of the area, although census counts as of April 1 may be used in decennial census years. Crude rates are expressed in terms of occurrences within a standard, rounded population, usually 1,000 or 100,000.

While the denominators for rates consist of the population at risk of the events included in the numerator (e.g., births, deaths), ratios are designed to indicate the relationship between two counts in which the denominator population is not at risk of the events included in the numerator. An example of a ratio contained in this document is the ratio of public spending on nursing homes to public spending on Home and Community Based Services contained in the chapter on Preserving Good Health for Seniors.

In order to compare natality and mortality experience among various ages and races or between the sexes, rates may be computed for subgroups of the population. These are referred to as age-, race-, or sex-specific rates and are calculated by dividing the relevant events within a subgroup by the population in the subgroup. Death rates from specific causes may also be calculated, with the numerator consisting of the deaths from the particular cause in an area and the denominator comprised of the population at risk of the disease or condition.

The definition of rates and ratios used in this report follows. It should be noted that alternative forms exist for some of these statistics. Some other states and the federal government may employ different formulae for the computation of selected rates.

Age-Adjusted Incidence or Death Rate -- Direct Method-the elimination of the effect of the age distribution of the population on crude rates for purposes of comparison with other rates by applying actual age-specific rates to a standard population. The resulting rate in the standard population is age-adjusted and can only be compared to other rates age-adjusted to the same standard population.

Age-Specific Birth Rate -- the number of resident live births to females in a specific age group per 1,000 females in the age group.

Cause-Specific Death Rate -- the number of resident deaths from a specific cause per 100,000 population.

Crude Death Rate -- the number of resident deaths per 100,000 population.

Crude Incidence Rate -- the number of newly diagnosed cases per 100,000 population within a given time span, usually one year.

Infant Mortality Rate -- the ratio of the number of deaths to children less than one year of age in a given year per 1,000 births in the same year.

Caution should be exercised in the interpretation of rates and ratios based on small numbers.

Appendix E.
Statistical Methodology

Age-Adjusted Rates -- The numbers of births and deaths or cases of disease and injury in an area are directly related to the demographic characteristics of the area's population. In comparing rates over time or among geographic areas, it is helpful to eliminate the effects of the differences in demographic characteristics of the populations on the comparison. This can be accomplished through adjustments of the rates for the particular characteristics of interest. Since age is the variable that has the greatest effect on the magnitude of rates (Shryock, Siegel and Associates, 1976), the most common type of adjustment of rates is for age.

There are at least two methods of calculating an age-adjusted rate: the Direct Method and the Indirect Method. Several different standard populations are currently in use by various agencies and groups. Direct adjustment of vital statistics rates involves application of existing rates (age-, race-, or sex-specific) to a standard population to arrive at the theoretical number of <u>events that would occur</u> in the standard population, at the rates prevailing in the actual population. These events are then divided by the total number of persons in the standard population to arrive at an adjusted rate. Adjusted rates are index numbers and cannot be compared to crude or other actual rates. The use of adjusted rates is limited to comparison with other adjusted rates, based on the same standard population. The standard population used in this report for age-adjustment of death and other rates aside from cancer incidence is the United States 1940 standard million, derived from the counts of the 1940 decennial census, while the age-adjusted cancer incidence rates use the United States 1970 standard million.

Years of Potential Life Lost (YPLL) -- Crude and age-adjusted death rates have traditionally been used to examine the relative importance of the various causes of death acting upon a population. Since most deaths occur in the older age groups, these measures are heavily weighted toward the mortality experience of the elderly. An important public health priority is the prevention of premature death, i.e., deaths that occur earlier than the average life expectancy or prior to some selected age, such as 65. A measure used to reflect the trends in premature mortality is years of potential life lost (YPLL). YPLL represents the summation of all of the years of life not lived to a defined upper limit. For this document, the YPLL age limit is set at 65. Deaths at younger ages receive a greater weight in computing YPLL than do deaths at older ages, e.g., one death at age 20 adds 45 years to YPLL, while a death at age 64 adds only one year to YPLL. Thus the death of one 20 year old is equivalent to the deaths of 45 persons aged 64 in the computation of years of potential life lost. The YPLL rate is the total YPLL in years, divided by the appropriate population under the age of 65.

Appendix F.
Data from the New Jersey Health Plan
Employer Data and Information Set (HEDIS)

The managed care organization (MCO) data presented in this report were derived by one of two methods: a review of billing records (the administrative method) or an examination of both medical and administrative records (the hybrid method). Use of the administrative records method will result in lower rates. HEDIS rates are based on complex protocols and documentation requirements to demonstrate that a patient has received a particular service.

Comparisons between HEDIS and population-based measures in *Healthy New Jersey 2010* are complicated by differences in applicable age groups and time frames. HEDIS data are collected on persons enrolled in New Jersey HMOs and Point of Service plans including commercial and self-insured products (but excluding Medicare and Medicaid). Specific definitions for the HEDIS measures contained in this report and the corresponding *Healthy New Jersey 2010* measures are:

Immunizations:

C   HEDIS is based on the full range of immunizations (4 diptheria/pertussis/tetanus (DPT), 3 polio, 1 measles/mumps/rubella, 1 influenza type b, and 2 hepatitis B) by the time of the second birthday. Completion by the age of two is strictly adhered to and the patient record must include the antigen and date given.

C   *Healthy New Jersey 2010's* data on childhood immunization are obtained from quarterly surveys conducted by CDC of the immunization status of children 18 through 35 months of age.

Mammograms:

C   HEDIS reports mammograms done on women aged 52 through 69 during the previous two years.

C   *Healthy New Jersey 2010's* measure in this area is estimated from BRFSS results for women 40 and over who report receiving a clinical breast examination and a mammogram within the past two years.

Dilated Eye Exams of Persons with Diabetes:

C   HEDIS data are for persons aged 31 or older with diagnosed diabetes who received an eye exam from an eye care specialist during the past year.

C   *Healthy New Jersey 2010* uses findings from BRFSS on persons 18 and over with diagnosed diabetes who report having had a dilated eye exam within the past year.

Condition	ICD-9-CM Identifying Codes
Homicide	E960-E969
Homicide by Firearms	E965.0-E965.4
Motor Vehicle Related Injuries	E810-E825
Falls	E880-E888 (from Multiple Cause of Death File)
Coronary Heart Disease	402, 410-414, 429.2
Cerebrovascular Disease	430-438
Diabetes	250
Cardiovascular Disease in the presence of diabetes	390-448 (from Multiple Cause of Death File) with 250 in any other diagnosis field
Female Breast Cancer	174
Cervical Cancer	180
Prostate Cancer	185
Colorectal Cancer	153.0-154.3, 154.8, 159.0
Lung Cancer	162.2-162.9
HIV Infection	042-044
Suicide	E950-E959
Drug-Related	292, 304, 305.2-305.9, E850-E858, E950.0-E950.5, E962.0, E980.0-E980.5
Asthma	493
Motor-Vehicle Related Pedestrian Deaths	E810-E825 with fourth digit of 7

Appendix H.
Healthy New Jersey 2010
Inter-Departmental Steering Committee Members

Healthy New Jersey 2010 was prepared by the Office of Policy and Research, with the assistance of an Inter-departmental Steering Committee, which included representatives not only from the Department of Health and Senior Services, but also the Departments of Education, Environmental Protection, Human Services and Law and Public Safety. Many other agency staff worked with their Steering Committee representatives to respond to suggestions and information for this report. The data tables were prepared by the Center for Health Statistics.

Healthy New Jersey 2010
Inter- departmental Steering Committee Members

Name	Title	Program
Ruth Charbonneau	Director, Chair	NJDHSS, Office of Policy & Research
William Barstow	Chief, Policy and Planning	NJDHSS, Addiction Services
John Brook	Managing Physician	NJDHSS, Communicable Disease Services
James Brownlee	Director	NJDHSS, Consumer and Environmental Health Services
Val Casey	Office of Children's Services	NJDHS, Mental Health Services
Marilyn Dahl	Senior Assistant Commissioner	NJDHSS, Health Planning & Regulation
Linda Holmes	Executive Director	NJDHSS, Office of Minority Health
Betsy Kohler	Director	NJDHSS, Cancer Epidemiology Services
Patricia Macionis	Chief, Bureau of Planning	NJDHS, Mental Health Services
Rose Marie Martin	Research Scientist I	NJDHSS, Center for Health Statistics
Richard Matzer	Director	NJDHSS, Office of Local Health
Leslie McGeorge	Assistant Commissioner	NJDEP, Environmental Planning & Science
Linda L. Morse	Coordinator, Comprehensive Career Standards	NJDOE, Division of Academic & Health & Physical Education
Kathleen O'Leary	Director	NJDHSS, Occupational Health Services
Gary Poedubicky	Deputy Director	NJLPS, Highway Traffic Safety
E. Steven Saunders	Director	NJDHSS, AIDS Prevention & Control
Viktoria Wood	Research Scientist II	NJDHSS, Division of Family Health Services
Martin T. Zanna	Director	NJDHSS, Senior Services, Office of Policy and Planning

Tracking Healthy New Jersey 2010

Healthy New Jersey 2010

Volume II

PART A: General Data Issues

1.
TARGET SETTING AND ASSESSING PROGRESS FOR MEASURABLE OBJECTIVES

Selection of the Overarching Goals

Healthy New Jersey 2010 adopts the overarching goals as well as much of the framework of the federal document, *Healthy People 2010*, but is designed to focus on New Jersey data. It is important to note that the overarching goals proposed for the year 2010 are significantly different from those which informed *Healthy New Jersey 2000*. For the year 2000, New Jersey set two major goals: to prevent premature death, and to reduce the gap in health status between minorities and the total population. There has been considerable progress toward these two goals, although the record on meeting the specific year 2000 targets is a mixed one. For the year 2010, however, New Jersey is proposing to adopt the much more ambitious goals of increasing the quality and years of healthy life; and to narrow, and in many instances eliminate, health status gaps between minority and majority populations, while identifying the amount of change needed to eliminate health disparities.

Goals are not predictions.

At the same time that *Healthy New Jersey 2010* acknowledges the overarching importance of increasing quality and years of life, and of eliminating health disparities, it also recognizes that ten years is a very short time to reach these ambitious goals. This is the direction that New Jersey needs to move in; these are the standards by which we will judge how well the state is doing. It would be less than honest, however, to suggest that asserting these very ambitious goals is equivalent to predicting that New Jersey will achieve them by the year 2010. On the other hand, the articulation of public health goals can have a powerful impact in focusing attention and resources on pressing needs, and can make a real difference.

Objectives are the means by which the overarching goals are translated into measurable indicators.

Like its predecessor, *Healthy New Jersey 2010* seeks to operationalize its goals by identifying objectives. An "objective for 2010 is a statement of a target to be achieved by 2010 for a quantifiable indicator that is considered a relevant measure of movement toward one or both goals." The target represents an improvement over baseline, and may be stated as a rate, percentage, or a number of cases.

There is as much art as there is science in the development of targets for objectives. They have more of the character of predictions than do the overarching goals, because they are measurable and involve some increment of progress over a baseline. They are, nonetheless, also very speculative. *Health New Jersey 2000* has already taught us how difficult it is to project trends ten years into the future, even when one starts from a systematic evaluation of available data. The mortality associated with HIV/AIDS provides a good illustration. New Jersey's year 2000 targets, set at a time when information about the incidence and prevalence of HIV/AIDS, as well as treatments for those with the disease were much more limited, initially proved to be extraordinary ambitious and seemed unlikely to be achieved. Medical breakthroughs in treatment have resulted in people with HIV/AIDS living longer, healthier lives. As a consequence, the original year 2000 targets are likely to be achieved. Medical advances in a specific disease and their impact on mortality cannot, however, be predicted with any reliability.

The year 2000 objective of reducing the percentage of the population under age 65 without health insurance to three percent provides another interesting example of the difficulty in setting targets fulfilling the overarching goals. In the early 1990s, it appeared that consensus was growing for development of some form of universal health insurance as a national policy, and it was not unreasonable to set a year 2000 target of reducing those without insurance to three percent of the population. After a very intensive national debate of this issue, however, it became clear that genuine consensus was lacking, and that a federal universal health insurance program would not be enacted. National trends, such as steady decline in the percentage of Americans covered by employment-based health insurance, continued, however. It is very difficult to address such national phenomena on the state level, and New Jersey, like the rest of the nation, has experienced a decline in the percentage of its population with health insurance. The assessment made of the trends in health insurance when the year 2000 target was set was not an unreasonable one, given the information available at that time. In retrospect however, it has proven to be overly optimistic.

In *Healthy New Jersey 2010*, targets have been set in a way that connects them to the overarching goals, as well as to the trends that have been observed to date. For example, in order to address the goal of eliminating disparities, baselines will be established for the white, black, Asian/Pacific Islander and Hispanic populations in New Jersey whenever the data permit and such a breakdown makes sense. Depending on the specific objective, data might also be broken down by age or gender. This will allow measurement of progress toward the goal of eliminating disparities.

For most of the objectives in this report, there is both a "target" and a "preferred 2010 endpoint." In most cases, the preferred endpoints identified for each objective indicate what must be achieved to increase years of healthy life, eliminate preventive disparities, and to reflect progress for all groups even those that are doing comparatively well today. The targets, on the other hand, represent what agency staff believes are ambitious but achievable numbers that can be attained by the year 2010, taking recent trends into account as well as predicting the impact of future efforts of all concerned parties. They are not always identical to the preferred endpoints that a literal interpretation of the overarching goals would dictate. For each objective, the percentage change between baseline and the target or preferred endpoint is reported, in order to give some indication of the magnitude of change.

2.
DEVELOPMENTAL OBJECTIVES

Data sets that are under development or funded for development are used to support many *Healthy New Jersey 2010* objectives. The following objectives rely on developmental data sources:

3A.7   Increase the percentage of residential lead evaluation/risk assessments conducted that meet performance standards to 90.0 percent.

3A.8   Reduce the percentage of initial inspections of retail food establishments where deficiencies are noted to _____.

3B.13   Increase the percentage of children screened for lead poisoning by two years of age to 85.0 percent.

3B.14   Reduce the percentage of tested children whose initial blood lead level is $\geq$10 Fg/dL by 50.0 percent.

3B.16   Increase the percentage of infants receiving diagnostic follow-up after a position screening for hearing loss by three months of age to 90.0 percent.

3B.17   Increase the enrollment of infants diagnosed with hearing loss/deafness in appropriate intervention services by six months of age to 90.0 percent.

3B.18   Increase the percent of fourth grade public school students who pass the comprehensive health and physical education portion of the Elementary School Proficiency Assessment (ESPA) to _____ percent.

3C.1   Increase the percentage of public school students who pass the comprehensive health and physical education portion of the Grade Eight Proficiency Assessment (GEPA) to _____ percent.

3C.2   Increase the percentage of eleventh grade public school students who pass the comprehensive health and physical education portion of the High School Proficiency (HPSA) to _____ percent.

3E.3   Increase the percentage of health care facilities protecting workers by instituting effective latex-sensitization prevention practices to 90 percent.

3E.4   Increase hepatitis B vaccination levels among New Jersey public employees at occupational risk of infection through exposure to blood to 90 percent.

3G.1   Decrease the ratio of public spending on nursing homes to public spending on Home and Community Based Services (HCBS) to _____.

3G.5   Reduce the statewide incidence of falls per 100 person years in long-term care facilities to _____.

3G.6   Reduce the statewide average prevalence of decubitus ulcers (excluding State I) in long-term care facilities to _____ percent.

3G.7   Reduce the Statewide average percentage of residents in long-term care facilities using nine or more different medications to _____ percent.

4B.3   Increase the percentage of persons 18 and over who have been screened for diabetes during the past three years to ____ percent.

4B.4   Increase the percentage of persons 18 and over with diagnosed diabetes who have been told they have blood pressure and are currently taking medication for high blood pressure to ____ percent.

4B.6   Increase the number of persons who are in the criminal justice system and have serious mental illness (as defined by the Diagnostic and Statistical Manual, Edition IV) who are provided with appropriate services to _____.

4G.4   Reduce the rate of emergency department visits per 100,000 population due to asthma to _____.

5.1   Increase the preparation of *Healthy New Jersey 2010* objectives for which state data are released within one year of the end of data collection by 100%.

5.2   Increase the use of standardized geocoding in all major NJDHSS health data systems to promote the development of geographical information system (GIS) capability to 100 percent.

5.3   Increase the proportion of NJDHSS *Healthy New Jersey 2010* objectives for which racial/ethnic sub-objectives are appropriate that can be tracked for all population groups to 100 percent.

5.4   Increase the proportion of non-confidential NJDHSS health data that is made readily available to the public.

5.6a   Increase the percentage of local health departments that have actively participated in developing a county-wide community health plan that identifies improved health outcomes to 80.0 percent.

5.6b   Increase the percentage of county-wide public health partnerships which produce one initial plan and two updates by 2010 to 100.0 percent.

5.8   Increase the percentage of local health departments that satisfy staff expertise/ competencies defined in NJDHSS public health performance standards to 90.0 percent.

5.9   Increase the percentage of local health departments that satisfy NJDHSS public health performance standards for public health and environmental laboratory services to 90.0 percent.

5.10   Increase the percentage of local health departments that satisfy NJDHSS public health performance standards for epidemiology services to support core functions and essential public health services to 90.0 percent.

3. TABLE 1: POPULATION ESTIMATES

People QuickFacts	New Jersey	USA
Population, 1999 estimate	8,143,412	272,690,813
Population percent change, 1990-1999 estimate	+5.1%	+9.6%
Male population, 1999 estimate	3,946,443	133,276,559
Female population, 1999 estimate	4,196,969	38,252,190
Population under 18 years old, 1999 estimate	24.6%	25.7%
Population 65 years old and over, 1999 estimate	13.6%	12.7%
White population, 1999 estimate	79.3%	82.4%
Black population, 1999 estimate	14.7%	12.8%
Asian or Pacific Islander population, 1999 estimate	5.8%	4.0%
American Indian, Eskimo, or Aleut population, 1999 estimate	0.3%	0.9%
Hispanic population, 1999 estimate	12.6%	11.5%
White non-Hispanic population, 1999 estimate	68.4%	71.9%
High school graduates, persons 25 years and over, 1990	76.7%	75.2%
College graduates, persons 25 years and over, 1990	24.9%	20.3%
Homeownership rate, 1990	64.9%	64.2%
Single family homes, number 1990	1,871,958	65,761,652
Households, 1990	2,794,316	91,993,582
Persons per households, 1990	2.71	2.63
Family households, 1990	2,037,787	65,049,428
Median household money income, 1997 model-based estimate	$47,903	$37,005
Persons below poverty level, percent, 1997 model-based estimate	9.3%	13.3%
Children below poverty level, percent, 1997 model-based estimate	14.8%	19.9%

Business QuckFacts	New Jersey	USA
Private nonfarm establishments, 1998	230,860	6,941,822
Private nonfarm employment, 1998	3,368,365	108,117,731
Change in private nonfarm employment, 1990 to 1998	4.6%	15.7%
Manufacturers shipments, 1997 ($1000)	97,060,800	3,842,061,405
Retail sales, 1997 ($1000)	79,914,892	2,460,886,012
Retail sales per capita 1997	$9,922	$9,190
Minority-owned firms, 1992	64,074	1,965,565
Women-owned firms, 1992	164,798	5,888,883
Building permits, 1999	31,976	1,663,533
Federal funds and grants, 1999 ($1000)	40,397,603	1,516,775,001
Local government employment-full-time equivalent, 1997	298,363	10,227,429

Geography QuckFacts	New Jersey	USA
Land area, 1990 (square miles)	7,419	3,536,278
Persons per square mile, 1999	1,097.7	77.1

Data Quality Statement

Source U.S. Census Bureau: State and County QuickFacts. Data derived from Population Estimates, 1990 Census of Population and Housing, Small Area Income and Poverty Estimates, County Business Patterns, 1997 Economic Census, Minority-and Women-Owned Business, Building Permits, Consolidated Federal Funds Report, 1997 Census of Governments

	Total			White			Black			Asian			Hispanic		
	1990	2000	Change	1990	2000	Change	1990	2000	Change	1990	2000	Change	1990	2000	Change
New Jersey	7,730,188	8,414,350	9%	6,130,465	6,104,705	0%	1,036,825	1,141,821	10%	270,839	480,276	77%	739,861	1,117,191	51%
Atlantic	224,327	252,552	13%	172,088	172,632	0%	39,064	44,534	14%	4,786	12,771	170%	16,117	30,729	91%
Bergen	825,380	884,118	7%	717,907	698,236	-3%	40,031	46,568	16%	54,660	94,024	73%	49,776	91,377	84%
Burlington	395,066	423,394	89%	324,731	331,898	2%	56,545	64,071	13%	7,873	11,376	44%	12,819	17,632	38%
Camden	502,824	508,932	-36%	385,350	360,756	-6%	81,665	92,059	13%	11,504	18,910	64%	36,022	49,156	36%
Cape May	95,089	102,326	-74%	88,097	93,700	6%	5,334	5,178	-3%	580	661	14%	1,855	3,376	82%
Cumberland	138,053	146,438	-71%	101,467	96,478	-5%	23,318	29,585	27%	1,110	1,397	26%	18,348	27,823	52%
Essex	778,206	793,633	735%	398,024	352,859	-11%	318,262	327,324	3%	21,017	29,429	40%	97,777	122,347	25%
Gloucester	230,082	254,673	84%	205,509	221,742	8%	19,935	23,084	16%	2,824	3,805	35%	4,131	6,583	59%
Hudson	553,099	608,975	-22%	380,612	338,457	-11%	79,770	82,098	3%	36,564	56,942	56%	183,465	242,123	32%
Hunterdon	107,776	121,989	47%	103,768	114,563	10%	2,217	2,743	24%	1,382	2,348	70%	1,732	3,371	95%
Mercer	325,824	350,761	-37%	244,850	240,206	-2%	61,481	69,502	13%	9,862	17,340	76%	19,565	33,898	72%
Middlesex	671,780	750,162	596%	550,006	513,298	-7%	53,629	68,467	28%	44,766	104,212	133%	59,776	101,940	71%
Monmouth	553,124	615,301	89%	483,277	518,261	7%	47,229	49,609	5%	15,097	24,403	62%	22,407	38,175	70%
Morris	421,353	470,212	-30%	386,681	410,042	6%	12,491	13,181	6%	16,700	29,432	76%	19,814	36,626	85%
Ocean	433,203	510,916	-8%	412,709	475,391	15%	12,035	15,268	27%	3,820	6,550	71%	13,950	25,636	84%
Passaic	453,060	489,049	16%	325,530	304,786	-6%	66,077	64,647	-2%	11,880	18,064	52%	98,092	146,492	49%
Salem	65,294	64,285	-85%	54,394	52,195	-4%	9,557	9,498	-1%	376	396	5%	1,436	2,498	74%
Somerset	240,279	297,490	-34%	211,384	236,042	12%	14,824	22,398	51%	10,521	24,941	137%	10,187	25,811	153%
Sussex	130,943	144,166	121%	127,831	133,015	8%	1,242	1,502	21%	1,208	1,738	44%	2,911	4,822	66%
Union	493,819	522,541	117%	367,416	342,302	-7%	92,807	108,593	17%	13,514	19,993	47%	67,797	103,011	52%
Warren	91,607	102,437	-22%	89,028	96,846	9%	1,302	1,914	47%	743	1,242	67%	1,784	3,751	110%

Note: Sum of racial and ethnic group exceeds population total because hispanics are included in both ethnic and racial categories. All data from State Data Center, NJDOL.

3. Table 3: Age by County, New Jersey, 1980 and 1990

	0-19 years			20-64 years			65+			Poverty and income % below poverty - 1995		Median Household Income
	1990	1999	Change	1990	1999	Change	1990	1999	Change	Total	Children	1995
New Jersey	2,031,807	2,207,376	9%	4,695,523	4,827,784	3%	1,029,825	1,108,255	8%	8.7	12.6	$44,345
Atlantic	58,688	65,475	12%	134,092	139,838	4%	32,371	34,313	5%	10.9	15.4	$37,205
Bergen	187,986	201,448	7%	511,262	521,339	2%	126,269	134,265	6%	4.6	5.8	$55,340
Burlington	111,229	119,796	8%	242,614	249,609	3%	42,374	55,105	30%	5.3	7.2	$49,665
Camden	147,240	154,093	5%	295,063	286,228	-3%	61,077	62,772	3%	12.3	18.1	$39,340
Cape May	23,516	25,180	7%	52,671	52,803	0%	19,073	20,026	5%	9.8	13.9	$34,798
Cumberland	40,272	42,450	5%	79,338	78,410	-1%	18,587	19,242	4%	14.5	20.8	$34,089
Essex	213,556	211,406	-1%	466,509	444,105	-5%	97,306	91,844	-6%	16.7	24.6	$36,365
Gloucester	69,041	77,308	12%	137,256	144,575	5%	24,781	28,609	15%	7	9.4	$46,855
Hudson	138,443	145,149	5%	344,840	340,177	-1%	69,707	67,493	-3%	17.3	26.3	$32,152
Hunterdon	28,587	33,593	18%	69,398	78,496	13%	10,249	12,464	22%	2.9	3.3	$66,265
Mercer	85,554	91,050	6%	198,453	199,158	0%	42,082	43,653	4%	8.2	11.7	$47,088
Middlesex	167,914	185,788	11%	426,104	439,563	3%	78,823	92,598	17%	5.8	7.8	$50,019
Monmouth	149,699	170,810	14%	334,138	363,449	9%	70,361	77,185	10%	6.3	8.5	$53,199
Morris	107,633	120,120	12%	269,498	288,774	7%	44,542	54,651	23%	3.3	4	$62,773
Ocean	108,921	130,663	20%	225,147	253,419	13%	100,393	113,451	13%	7.3	10.4	$40,474
Passaic	130,294	141,358	8%	281,923	285,149	1%	58,659	58,557	0%	12.3	17.7	$38,381
Salem	18,631	18,781	1%	37,206	35,623	-4%	9,545	10,130	6%	10	14.8	$39,092
Somerset	58,477	72,124	23%	156,885	183,333	17%	25,982	32,633	26%	3.4	4.3	$66,223
Sussex	39,898	45,252	13%	79,810	86,463	8%	11,678	12,985	11%	3.9	4.9	$57,064
Union	121,127	127,062	5%	298,558	298,549	0%	73,872	73,148	-1%	7.8	11.6	$46,161
Warren	25,101	28,460	13%	54,757	58,719	7%	12,098	13,133	9%	6.2	8.1	$47,043

Note: Federal Poverty Level in 1995 was $15,719 for a four person household.

4.
AGE STANDARDIZATION

Age Standardization Of Death Rates In New Jersey: Implications Of A Change In The Standard Population

Beginning with data year 1999, the U.S. Department of Health and Human Services is using a new standard population based on the year 2000 population for age standardization (age-adjustment). The change to a new standard population will require re-computation of age-adjusted rates for past years using the new standard population, for purposes of examining trends. The baseline year for many objectives in *Healthy New Jersey 2010* is 1998. This section discusses the implications of the change. Future updates of *Healthy New Jersey 2010* will reflect use of the year 2000 standard as well as a discussion of the effect of the change on the reported objectives.

Death rates are greatly affected by the socioeconomic/demographic composition of the population at risk. Specifically, death rates have been shown to vary by age, race, gender, occupation, education and income levels of the population. However, death rates are most greatly impacted by the age distribution of the population.[1] The overall death rate and the death rate from most causes will be higher in populations with a greater proportion of persons in the older age groups than in populations with relatively large proportions of younger people. Thus, comparisons of crude or unadjusted death rates among groups or over time may be misleading if the age distributions of the populations at risk are different. For this reason, death rates intended for use as trend data or for comparisons among groups are usually adjusted or standardized, to remove the effect of the differences in age distribution.

Age adjustment, using the direct method, requires the selection of a standard population. Since 1943, the National Center for Health Statistics (NCHS) and the state Centers for Health Statistics have used a standard population derived from the 1940 Census count. Population demographics have changed considerably since 1940 in the country. Fertility has declined resulting in a smaller proportion of the population in the youngest age groups at the same time that life expectancy has increased, leading to growth in the number and percentage of persons in the older age groups. These changes in actual population when applied to an out-of-date standard have led to a substantial discrepancy between the crude and age-adjusted death rates. At present, there are at least three other standard populations in use by various governmental and private agencies.[2] For example, the National Cancer Institute (NCI) uses the 1970 U.S. census count as the population standard for age adjustment. The New Jersey Cancer Registry followed NCI's lead in using the 1970 population standard for age-adjusted rates in this document.

In response to the major issues related to selection of a standard population, NCHS has recommended that a new standard for age adjustment of rates be adopted based on the projected year 2000 U.S. population. The recommendation was approved by the Secretary of the Department of Health and Human Services and was implemented beginning with data year 1999.[3] Changing to the year 2000 standard population will lead to age-adjusted rates that are very close to the crude health rates. This occurs because the population estimates by age group for current years are very similar to the proportions by age group in the year 2000 U.S. population projections. The magnitude of the age-adjusted rates using the year 2000 standard are almost twice the age-adjusted rates computed using the 1940 standard population. For example, in 1997 the age-adjusted death rate for New Jersey using the 1940 standard population was 460.3 per 100,000 and the comparable rate using the year 2000 standard population was 861.4.

The crude or unadjusted death rate is calculated by dividing the number of deaths in a population during a defined period of time, usually a year, by the population exposed to the risk of death during the period. The result is multiplied by a constant, usually 1,000 or 100,000, to avoid expressing these rates as numbers less than one. For example, the crude death rate among New Jersey residents in 1997 was 894.6 per 100,000 population, arrived at by dividing 72,039 resident deaths by the estimated mid-year population of the state, 8,052,849, and multiplying the result by 100,000. Crude death rates serve several public health purposes, which include providing an indication of the magnitude of overall and cause-specific mortality in a population.

Although useful for certain purposes, the crude death rate has a major shortcoming: it is a function of the age distribution of the population at risk. A summary measure that eliminates the effect of the underlying age distribution of the population is the age-adjusted death rate. The result is a figure that represents the theoretical risk of mortality for a population, if the population had an age distribution identical to that of the standard population.

There are two major techniques for computing age-adjusted rates: the direct and the indirect methods. The indirect method is not in wide usage in this country. The direct method age-adjusted rate is calculated by applying a series of weights to the age-specific death rates. The weights are the respective proportions of the standard population in each of the relevant age groups. The age-adjusted rate derived in this manner can then be compared with other similar age-adjusted rates to assess the relative risks of mortality from populations or over time, when the effect of the age distribution has been removed. The methods of age standardization are valid for many other types of rate adjustments, including morbidity and birth rates and for adjustment for characteristics other than age, such as gender, income and race. Several important points apply:

- The age-adjusted or age-standardized rate is an index number, not an actual death rate. It is a hypothetical figure designed for the purpose of comparing rates among populations or within the same population over time.

- The age-adjusted rate can only be compared to other rates generated through use of the same method and using the same standard population.

- The use of a summary statistic, such as the age-adjusted death rate, may ignore important trends and differences in age-specific death rates.

The choice of a standard population does not effect the trends in age-adjusted rates, unless trends in these death rates vary by age groups. However, the relative ranking of causes of death may differ, depending on the standard used. As shown in Table 1, the leading cause of death which are most prevalent in the older age groups (e.g., diseases of the heart, stroke, chronic obstructive heart disease, pneumonia and influenza and diabetes) will tend to have adjusted rates that are considerably higher using the 2000 standard, compared to using the 1940 standard. Leading causes of death that are more prevalent among young and middle-aged populations (i.e., unintentional injuries, HIV infection) will have similar adjusted rates using either standard population. The differential changes in magnitude of age-adjusted rates by cause lead to variations in the ranking of leading causes, depending on the standard population used.

Table 1 illustrates the effect of the choice of a standard population overall and on the leading causes of death in 1997. For each of the causes which affected primarily the elderly population (all of the ten leading causes except unintentional injury and HIV infection), the age-adjusted rate using the 2000 standard population was two or more times the age-adjusted rate using the 1940 standard population. The death rates resulting from using the two different standards were very similar for HIV infection and unintentional injury deaths. This effect is due to the higher proportion of elderly persons in the year 2000 standard. The highest age-specific rates are applied to a larger population when calculating age-adjusted rates for heart disease, stroke, pneumonia and influenza, and other causes affecting primarily the oldest population.

TABLE 1 AGE-ADJUSTED DEATH RATES, LEADING CAUSES AND TOTAL DEATHS USING 1940 AND 2000 STANDARD POPULATIONS NEW JERSEY, 1997				
Cause of Death	**1940 Standard**		**2000 Standard**	
	RATE	**RANK**	**RATE**	**RANK**
Disease of the Heart (390-398, 402, 404-429	123.0	2	277.5	1
Malignant Neoplasms (140-208)	127.9	1	212.5	2
Cerebrovascular Diseases (430-438)	21.5	4	50.5	3
Chronic Obstructive Pulmonary Diseases (490-496)	16.0	6	32.8	4
Pneumonia/Influenza (480-487)	11.3	8	29.5	5
Diabetes Mellitus (250)	16.1	5	28.5	6
Unintentional Injuries (E800-E949)	23.4	3	26.4	7
Septicemia (038)	7.2	9	15.7	8
Nephritis/Nephrosis (580-589)	6.0	10	13.1	9
HIV Infection (042-044)	11.6	7	12.3	10
Total, All Causes	460.3		861.4	

The age-adjusted death rate using the year 2000 standard population the crude death rate for current years are very similar (Table 2). This is due to the correspondence between current years' population estimates and the projected population for 2000. In future years, as there is greater distance between the data year and the year of the standard population, there will no doubt be greater discrepancies between crude and age-adjusted rates.

TABLE 2 AGE-ADJUSTED DEATH RATES USING THE 2000 STANDARD POPULATION AND CRUDE DEATH RATES NEW JERSEY, 1997		
CAUSE OF DEATH	**CRUDE DEATH RATE**	**AGE-ADJUSTED RATE 2000 STANDARD**
Diseases of the Heart (390-398, 402, 404-429)	287.6	277.5
Malignant Neoplasms (140-208)	222.4	212.5
Cerebrovascular Diseases (430-438)	52.3	50.5
Chronic Obstructive Pulmonary Diseases (490-496)	34.5	32.8
Pneumonia/Influenza (480-487)	30.3	29.5
Diabetes Mellitus (250)	29.8	28.5
Unintentional Injuries (E800-E949)	26.8	26.4
Septicemia (038)	16.3	15.7
Nephritis/Nephrosis (580-589)	13.5	13.1
HIV Infection (042-044)	12.7	12.3
Total, All Causes	894.6	861.4

Changing to the 2000 standard population will affect racial differences in age-adjusted rates. Relative age-specific rates differ substantially between white and black races. In New Jersey in 1997, for example, the black death rate for the population under 25 was 2.5 times the white rate, yet for persons aged 65 and over, the death rates were virtually identical (Table 3). Although black age-adjusted rates are higher than comparable white rates using either standard population and the gap between the age-adjusted rates persists, the ratio of black/white rates is less using the year 2000 standard population: a black/white ratio of 1.6 using the 1940 standard population and a ratio of 1.3 using the year 2000 population. Because of this lack of consistency in the relative rates by race among age groups, it is important that the presentation of age-adjusted rates by race be supplemented by analysis of age-specific rates.

TABLE 3			
CRUDE AND AGE-ADJUSTED DEATH RATES FOR BLACK AND WHITE RACES USING 1940 AND 2000 STANDARD POPULATIONS NEW JERSEY, 1997			
DEATH RATE	**WHITE**	**BLACK**	**BLACK/WHITE RATIO**
CRUDE	955.4	769.7	
AGE-ADJUSTED			
1940 STANDARD	429.4	674.3	1.6
2000 STANDARD	831.3	1099.7	1.3
AGE-SPECIFIC			
UNDER 25	49.9	126.0	2.5
25-64 YEARS	318.5	638.2	2.0
65 AND OVER	5015.7	4914.5	1.0

The ratios of white and Asian or Pacific Islander death rates will also be affected by changes in the standard population for age-adjustment, although to a lesser extent than the black/white ratios. The crude and age-adjusted death rates for the Asian or Pacific Islander population are lower than those in the white population (Table 4), although there may be understatement of Asian or Pacific Islander race on the death certificates.[4] The ratio of Asian or Pacific Islander and white age-adjusted death rates decreases to .37 when the year 2000 population projections are used, from .40 under the 1940 standard population. The minimal change in the ratios when the year 2000 population standard is used is caused by the relative age-specific death rates in the Asian or Pacific Islander population: the age-specific death rates are relatively highest in the youngest ages and lowest in the older age group.

TABLE 4 CRUDE AND AGE-ADJUSTED DEATH RATES FOR WHITES AND ASIAN OR PACIFIC ISLANDERS USING 1940 AND 2000 STANDARD POPULATIONS NEW JERSEY, 1997			
DEATH RATE	**WHITE**	**ASIAN OR PACIFIC ISLANDERS**	**ASIAN OR PACIFIC ISLANDER/WHITE RATIO**
CRUDE	955.4	158.8	
AGE-ADJUSTED			
1940 STANDARD	429.4	171.4	0.40
2000 STANDARD	831.3	311.4	0.37
AGE-SPECIFIC			
UNDER 25	49.9	33.4	0.67
25-64 YEARS	318.5	103.8	0.33
65 AND OVER	5015.7	1575.8	0.31

In summary, use of a uniform standard will simplify and ease the burden of comparison of data from different sources, using different standard populations. However, the implementation of a new standard population will necessitate recalculation of a large number of series of rates. In particular, baseline data for selected health objectives for the year 2010 will have to be recomputed and, in many of these cases, new targets will need to be developed. Death rates age-adjusted to the new standard population will differ in magnitude from those previously used, most notably those developed using the 1940 standard population. Differentials in death rates by race will narrow with introduction of the new population standard to the age-adjustment process.

Thorough analysis of health data will incorporate examination of differences in trends in rates by age group, as use of age-standardization alone may mask important information. Although the age-adjusted rate is fundamental to comparative data analysis, the calculation of age-specific rates over time or between populations is also a critical element of health data analysis.

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5
CHANGES IN REPORTING OF
CAUSE OF DEATH DATA

IMPLEMENTATION OF ICD-10

Revisions in the system of classification of causes of mortality are made periodically. The classification system in effect for the data covered in this report was the *Manual of the International Statistical Classification of Diseases, Injuries and Causes of Death: International Classification of Diseases* (ICD-9). This version of the classification system was in effect for deaths that occurred from calendar years 1979 through 1998. A change in the method of classifying causes of death from death records was recently implemented. As of January 1999, causes of death have been classified and coded according to the *Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems* (ICD-10). The changes in the method of classification of cause of death may have an impact on the manner in which the health objectives contained in *Healthy New Jersey 2010* will be tracked across the coming decade.

The first revision of the International List of Causes of Death was implemented in 1900, followed by one per decade until the Ninth Revision (ICD-9), which was in effect from 1979 through 1998. The current revision is ICD-10 which became effective in 1999. The system of classification is developed through a collaborative effort on the part of the World Health Organization (WHO) and ten international centers, one of which is located at the National Center for Health Statistics (NCHS). This collaboration is for the purpose of promoting international comparability in the use and presentation of morbidity and mortality data. The agreement with WHO that insures the use of the ICD for the classification of deaths has the force of an international treaty.

Each of the revisions to the ICD has included three major types of change: (1) the addition or deletion of terms used to describe diseases or conditions; (2) the movement of diseases from one section to another to reflect new discoveries or advances in knowledge of the nature of cause of particular diseases; and (3) the addition of separate categories to identify diseases or complications of specific diseases which are of growing interest. These factors led to many of the major differences between ICD-9 and ICD-10. ICD-10 codes are alphanumeric, each consisting of a letter and three numbers, while ICD-9 used only numbers as codes. Another important change from ICD-9 is that there was a rearrangement of chapters, changes in titles and regrouping of conditions in ICD-10. The number of categories of causes of death has been increased dramatically; there are almost twice as many categories in ICD-10 as in ICD-9. In addition, some relatively minor changes in the coding rules have been made in ICD-10.

The cause-of-death section on the death record consists of two parts: causes that form part of the sequence of events that led to death (Part I) and other conditions that may have contributed to death, but did not cause the condition that began the sequence of events that resulted in death (Part II). The last cause in the sequence of causes in Part I is the underlying cause of death if it meets the definition of "(a) the disease or injury which initiated the train of events leading directly to death or (b) the circumstances of the accident or violence which produced the final injury". Part I and II of the certification of cause of death provide the information to be coded, grouped, arrayed in tables and otherwise analyzed for presentation. The causes on the certification section of the death record are either coded by an experienced cause-of-death coder, called a nosologist or through use of software which replicates the processes used by the nosologist. The list of codes and the rules used to

categorize the causes of death entered on the death certificate are contained in the international classification system.

Two major ways in which these changes effect the manner and form in which cause-of-death data are presented are in the grouping of causes into categories and in comparability of the grouped causes over time. The manner in which any particular single or grouped cause of death can be analyzed and presented may differ, depending on which revision of the ICD is in effect at the time. New categories are introduced with the development of a revised version of the coding manual. In addition, categories with the same name in two successive revisions may encompass different causes. Causes that were separate, distinct categories may be grouped with other causes in a new version of the code and cannot then be disaggregated under the new coding scheme. Importantly, changes in coding rules may effect the likelihood of a specific cause being designated as underlying in a causal sequence. All of these modifications may cause disruptions in the trends of deaths for causes of death that are effected. Measures of the discontinuities are essential to interpretation of mortality trends.

In order to measure the effect of a revision in the ICD on causes of death, comparability studies have been conducted by NCHS on each revision since the changeover from the Fourth to the Fifth revision which occurred in 1939. Comparability studies are useful because they provide measurement of the break in trend and also provide information on the process by which the break in trend occurred. Comparability studies are accomplished through coding a large sample of death records from a recent year twice, using the codes and coding rules in effect for each of the two revisions of ICD.

The end result of a comparability study is a set of comparability ratios indicating the quotient of the number of deaths classified to a cause under the current ICD revision divided by the number of deaths classified to the cause under the prior version. A number greater than one means that more deaths are classified to the cause under the latest revision of ICD. A comparability ratio of one means that the number of deaths is not expected to change as a result of the revision of ICD. NCHS provides the standard error and confidence interval for each of the computed comparability ratios.

Preliminary comparability ratios for causes of death under ICD-9 and ICD-10 were released by NCHS in December 2000.

The comparability ratios and guidance provided by NCHS will determine whether objectives contained in *Healthy New Jersey 2010* must be revised. For objectives relating to cause groups that show little or no discontinuity, the objectives for 2010 will remain as stated in this document. In a case where the cause group being measured by an objective under ICD-9 in this document cannot be identified in an identical manner in ICD-10, the objective will need to be revised in accordance with the most nearly comparable cause group in ICD-10. If this situation occurs, the baseline rate for the revised cause under ICD-10 will be recalculated using 1999 data and the targets, preferred 2010 endpoints and percentages of change will be reviewed for revision. The narrative sections related to the objective may also need adjustment. The progress on meeting the revised objective will be tracked through the coming decade, using the revised baseline measures and targets.

6
CHANGES IN CATEGORIZATION OF RACE AND ETHNICITY

REVISION OF OMB DIRECTIVE 15

In 1977, the Office of Management and Budget issued OMB Policy Directive No. 15, Race and Ethnic Standards for Federal Statistics and Administrative Reporting. This directive was intended to standardize the collection of racial and ethnic information among federal agencies. Although these standards applied to federal agencies, state governments and business and industry data users and researchers also complied with the directive, in order to have data that were consistent with national information. Directive 15 required the collection of data that could be aggregated into four racial groups (American Indian or Alaskan Native; Asian or Pacific Islander; black; and white) and two ethnic categories (Hispanic origin and not Hispanic origin). Each respondent was to be recorded in one of the four race groups and one of the two Hispanic origin categories. The preferred method of collecting race and ethnicity data was separate designation of a race and an ethnicity classification for each individual. However, if a combined format was used, the minimum acceptable categories were (1) American Indian or Alaskan Native; (2) Asian or Pacific Islander; (3) black, not of Hispanic origin; (4) Hispanic; and (5) white, not of Hispanic origin. Each individual on whom data were collected was to be placed in one of the five categories. In order to increase the response rate and minimize concern from responding individuals, an "other, specify" category was allowed, although the reporting agency was obligated to allocate each of the responses in this category to one of the standard categories. The "other, specify" category was allowed only where respondent self-identification was used.

The racial makeup of the country has changed since 1977, encompassing much more racial and ethnic diversity. Many residents were critical of the race/ethnicity categories after participating in the 1990 census, claiming that the available categories did not adequately represent the diversity of the population, particularly those with a multiracial background. In October 1997, after four years of review and consideration of the issue, the Federal Interagency Committee for the Review of the Racial and Ethnic Standards issued revisions to OMB Directive No. 15. One of the major changes contained in these guidelines for reporting was that respondents to federal surveys and the census have the option of reporting themselves as members of more than one race. Other changes to the standards include changes in labeling of categories: "black" becomes "black or African American", and Hispanic becomes "Hispanic or Latino". In addition, the previously combined category of Asian or Pacific Islander was separated into two groups: Native Hawaiian and other Pacific Islander; and Asian. Agencies are also required to obtain reporting from all respondents on Hispanic origin or not of Hispanic origin, separately from racial classification. All federal programs are required to comply with the new standards by January 1, 2003. An excerpt from the *Federal Register* of October 30, 1997 defines the racial categories under the revised standards as follows:

- **American Indian or Alaska Native.** A person having origins in any of the original peoples of North and South America (including Central America), and who maintains tribal affiliation or community attachment.

- **Asian.** A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam.

- **Black or African American.** A person having origins in any of the black racial groups of Africa. Terms such as "Haitian" or "Negro" can be used in addition to "Black or African American".

- **Hispanic or Latino.** A person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, regardless of race. The term, "Spanish origin," can be used in addition to "Hispanic or Latino".

- **Native Hawaiian or Other Pacific Islander.** A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.

- **White.** A person having origins in any of the original peoples of Europe, the Middle East, or North Africa.

The new guidelines for reporting of race and ethnicity were used in the year 2000 census. OMB granted the Census Bureau's request to again include a "some other race" category in the census questionnaire. Other federal agencies have implemented or are planning to incorporate the revised standards into reporting formats. The National Cancer for Health Statistics (NCHS) is developing revised standard certificates for vital events to be implemented in 2003. These new formats will meet the requirements of the revised standards. Some states may have already revised vital records reporting formats to meet the guidelines, but New Jersey will implement the revised guidelines in 2003, along with the implementation of the revised standard certificates. The Behavioral Risk Factor Surveillance System demographic module required of all reporting states has incorporated the revised standards into the 2001 questionnaire. Other federal and state agencies that report on race and ethnicity are expected to meet the 2003 deadline.

While resolving some reporting issues that affect a number of individuals reporting to or responding to federal and state administrative record systems and surveys, the revised method of reporting creates new challenges for analysis and interpretation of the resulting data. These issues fall into three general categories: (1) how many race/ethnicity groups to tabulate; (2) whether respondents should be counted each time they report being a member of a race or whether some type of allocation of multiple race individuals should be done; and (3) how comparisons should be made with data on race/ethnicity from earlier years when this information was collected differently.

The Office of Management and Budget has issued preliminary guidelines on the tabulation of data from its revised guidelines. The guidelines recommend presentation of data on individuals who selected only one group, separately for each of the five racial categories, and detailed data on the number of individuals who selected more than one category, as long as the requirements for data quality and confidentiality are met. When a "some other race" category is included, there are 63 possible combinations of race categories, including six single-race categories and 57 combinations of races for those who report two or more races. The basic presentation for redistricting, the PL 94-171 Redistricting File, will utilize all 63 categories. Many applications for geographic areas smaller than the nation will utilize aggregated categories due to small numbers of cases. One such grouping would result in the presentation of data for seven categories: American Indian and Alaska Native alone; Asian alone; Black or African American alone; native Hawaiian and Other Pacific Islander alone, Some Other Race alone; White alone; and Two or More Races. Even this condensed list may produce very small numbers of events for some groups in states and smaller jurisdictions, depending on the demographic distribution of the population. In this case, racial groups other than the largest may have to be combined into an "all other single race" category, while still presenting data for individuals of "two or more races" if possible under the existing constraints. Each of the race

categories available for presentation could be cross tabulated with Hispanic origin (Hispanic or non-Hispanic), again depending on the number of events in the category.

In tabulating data where individuals can make more than one choice, respondents can be (1) counted in the exact categories of selection resulting in a potential for a large number of categories or (2) presented in grouped categories that encompass all respondents in one and only one category. An example of the latter would be the counts of all persons indicating a single race plus the aggregation of all persons selecting "two or more races" described above. This type of distribution results in a total count that represents the number of individuals in the data system, i.e., each respondent fits in one and only one category. For purposes of identifying which racial groups are represented by respondents, individuals could be counted in each response category. Thus each individual could be included in the tally one through six times depending on the number of racial categories the individual selected. The total for this type of distribution would be more than the total number of respondents, if any individual selected more than one race. Analysis of public health data in most cases requires allocation of population members to one and only one category. However, there may be applications where tabulation of the events in persons who identify with the various races is pertinent.

Comparison with data by race and ethnicity collected under the previous standards with data collected under the standards of the revision to OMB Directive No. 15 will be necessary for the analysis of trend data. The Tabulation Working Group of the Interagency Committee for the Review of Standards for Data on Race and Ethnicity has prepared a report on the tabulation options for trend analysis. The options proposed by this group fall into two general categories: (1) fractional assignment and (2) whole assignment. Fractional assignment divides responses in the "more than one race" group among the single race groups involved in the multiple race category, according to specific algorithms. Among the techniques are apportioning individuals in the multiple-race categories using equal fractions (e.g., one-half to each single-race group in a category with two races or one-third to each component group in a multi-race group of three races). Another proposed method for allocation is to assign persons in multiple-race groups proportionately to single-race data distributions from data from other sources. Whole assignment techniques call for placement of an entire multiple-race group into one of the single-race categories involved, using a set of rules. Different whole assignment techniques allocate all of the members in a multiple-race group to the smallest race group involved, to the largest non-white group involved, or to the largest group. Analysis and review of the effects of these allocation techniques are continuing.

For purposes of *Healthy New Jersey 2010*, the ability to distribute data by detailed race and ethnicity categories and to track these data over the decade is critical, in view of the overarching goal to eliminate health disparities inherent in this document. In an effort to ensure comparability of New Jersey's data on health status and progress in achieving its health objectives with the nation and other states, the guidance provided by *Healthy People 2010* will be followed. The National Center for Health Statistics, through its program of health data analysis, and the U.S. Bureau of the Census, through its presentation of census data and population estimation program, will set the standards for the states to follow for data tabulation and techniques for "bridging" race and ethnicity data for comparison with past years.

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Healthy New Jersey 2010

Volume II

PART B: Major Data Sources

A major data source is defined as a data system responsible for tracking five or more *Healthy New Jersey 2010* objectives. The following pages list the major data sources. Table 1 lists health measures by data source. Table 2 lists the major data sources by the number of objectives they track. A brief description of each (by alphabetical order) is provided in this section.

Major Data Sources

Data from birth and death certificates will provide the measurement of achievement for a number of the objectives encompassed by *Healthy New Jersey 2010*. Birth certificates are usually completed by hospital personnel, while death certificates are prepared by hospital personnel, physicians, medical examiners and funeral directors. New Jersey law requires that certificates of all births and deaths which occur in the state must be filed with the Local Registrar within a specified time period after occurrence. The certificates are then submitted to the office of the State Registrar, where they are recorded and filed permanently.

For public health planning and policy determination, the most useful population to study is usually the resident population of an area. For the objectives comprising *Healthy New Jersey 2010* which use birth and death data to measure progress, the data presented are for New Jersey residents. The National Center for Health Statistics sponsors a program of resident certificate exchange among the registration areas in the country, which fosters transfer of information on events occurring to out-of-state residents to the state of residence. This is particularly important to New Jersey, as a number of births to female residents of this state and deaths of New Jersey residents occur in New York and Pennsylvania.

Data on morbidity and disease incidence contained in this report come from a number of sources. Within NJDHSS, these include the New Jersey cancer registry, the AIDS registry, and the Office of Communicable Disease Service in the Department's Division of Epidemiology, Environmental and Occupational Health. Reporting of data from these systems is residence-based and includes data on New Jersey residents diagnosed in other states. Discharges from New Jersey acute care hospitals are reported through the Uniform Billing (UB-92) data system. The resulting data files serve as the source of information on the diagnoses and demographic characteristics of persons hospitalized in the state. For objectives which employ hospitalization rates as measures, the UB-92 file was used to provide occurrence-based baseline data.

Survey data from several sources were used to provide data for measurement of selected objectives: various health behaviors (the Behavioral Risk Factor Surveillance System); smoking and drug use among middle school public and private school students (The New Jersey Middle School Survey on Substance Use); and health insurance coverage (the Current Population Survey). Many of the Divisions within NJDHSS collect and analyze data specific to objectives contained in *Healthy New Jersey 2010*. These include environmental and occupational health data provided by the Division of Environmental and Occupational Health Services; core functions of local health departments provided by the Office of Local Health; data from the Women, Infants, and Children Program collected by the Division of Family Health Services; data on funds expended for nursing home and home or community-based long-term care services supplied by the Divisions of Consumer Support and Senior Affairs; and selected health indicators on managed care enrollees from the Health Plan Employer Data and Information Set (HEDIS) provided through the Division of Health Care Systems Analysis.

Several other departments within New Jersey state government with health-related responsibilities participated in the development of *Healthy New Jersey 2010* and have provided objectives with baseline data related to these areas of responsibility. Among the source files for data from other departments are three from the Division of Mental Health Services of the New Jersey Department of Human Services: the Unified Services Transaction Form, Crisis Intervention Service Reports, and Bureau of Licensing Reports of the Office of Children's Services Designation Reports. The Department of Law and Public Safety provides data on alcohol-related motor vehicle fatalities from the Fatal Accident Reporting System and data on drug, alcohol and tobacco use among public high

school students from the report, "Drug and Alcohol Use Among New Jersey High School Students." In addition to other state government departments, outside agencies provided data for objectives in this document: the Trans-Atlantic Renal Council provided data on characteristics of persons with newly diagnosed End Stage Renal Disease, and the New Jersey Institute of Technology is the source of information on local health department LINCS participation.

Included in the set of objectives which comprise *Healthy New Jersey 2010* are a number which have been labeled as developmental. These objectives have no existing baseline data. To be included in this document, these objectives had to have data currently in the process of being collected or have a collection system planned for implementation early in this decade. Among the developmental data sets which are expected to provide data for this process are the Elementary School, Grade Eight, and High School Proficiency Assessments from the Office of Standards and Professional Development in the Division of Academic Programs and Standards of the New Jersey Department of Education and the Minimum Data Set being collected by the Division of Senior Affairs of NJDHSS. In addition, the Office of Local Health of NJDHSS is planning extensive data collection efforts among local health departments to provide measurement on progress toward meeting objectives related to the functioning of local health departments.

Racial and Ethnic Classification

Race and ethnicity are reported as separate characteristics on some of the data forms used to collect measurement of data for health objectives in this document. Among these are the birth and death certificates, the Electronic Birth Certificate, the BRFSS questionnaire, the UB-92 hospital discharge file, and the Cancer Registry. Other data systems collect race/ethnicity as one characteristic: white non-Hispanic, black non-Hispanic, other non-Hispanic and Hispanic. These data systems include the surveys of middle and high school drug, alcohol and tobacco use, the HIV registry and the communicable disease data. The STD program has available data only for white and non-white races.

In order to address the overall goal of eliminating health disparities, baselines for relevant objectives have been presented for race/ethnicity groups and other high-risk populations, in addition to the total population. Where the data are available, 2010 targets have been set for the total population, white non-Hispanics, black non-Hispanics, Asian and Pacific Islanders, and Hispanics. Where Hispanic data are not currently available, the total population, whites including Hispanics and blacks including Hispanics have 2010 targets and will be tracked through the decade.

Data derived from birth certificates are presented by race and ethnicity of the mother. The reporting of Hispanic ethnicity on some of the other major data systems is problematic due to a large percentage of records with ethnicity not stated. Efforts are underway to improve the reporting of Hispanic ethnicity and for Asian and Pacific Islanders on the health data collected by NJDHSS, but, for this document, a number of the objectives appear without baseline data for these two populations. In those cases where steps have been taken or are planned which will provide or improve the reporting of these groups, the appropriate objectives have included Hispanics and Asian/Pacific Islanders as target populations, but with baseline data stated as "Not Available". It is planned to add data for these populations, if available, when an update to *Healthy New Jersey 2010* is prepared. In those cases where baseline data for Hispanics and Asian/Pacific Islanders are presented, caution should be exercised in using these rates, as they may understate the true rates.

DATA SOURCES

Table 1. Healthy NJ 2010 Health Measures by Data Source

Health Measure	Data Source
Self-Reported Health Status	New Jersey Behavioral Risk Factor Surveillance System Center for Health Statistics New Jersey Department of Health and Senior Services
Years of Potential Life Lost	New Jersey Resident Death Certificates Center for Health Statistics New Jersey Department of Health and Senior Services
Life Expectancy at Birth	New Jersey Resident Death Certificates Center for Health Statistics New Jersey Department of Health and Senior Services
Days Able To Do Usual Activities	New Jersey Behavioral Risk Factor Surveillance System Center for Health Statistics New Jersey Department of Health and Senior Services
Health Insurance	Current Population Survey Bureau of the Census United States Department of Commerce Contact: Center for Health Statistics New Jersey Department of Health and Senior Services
Source of Primary Care	New Jersey Behavioral Risk Factor Surveillance System Center for Health Statistics New Jersey Department of Health and Senior Services
Hospital Admissions for Ambulatory Care Sensitive Conditions	Uniform Billing Patient Summary Division of Health Care Systems Analysis New Jersey Department of Health and Senior Services

Environmental Health Data
    * Air Quality
    * Radon
    * Drinking Water
    * Beach Closings
    * Human Exposures to Medical Waste
    * Hazardous Waste Sites
    * Residential Lead Evaluations
      (Developmental)
    * Retail Food Establishment Deficiencies
      (Developmental)
	Consumer and Environmental Health Services
	Division of Epidemiology, Environmental and Occupational Health
	New Jersey Department of Health and Senior Services
	New Jersey Department of Environmental Protection

Infant Mortality	New Jersey Resident Death Certificates
	Center for Health Statistics
	New Jersey Department of Health and Senior Services
Characteristics of Newborns and Mothers	New Jersey Resident Birth Certificates
* Birth Weight	Center for Health Statistics
* Prenatal Care	New Jersey Department of Health and Senior Services
* Alcohol and Tobacco Use	
During Pregnancy	
Population Served by the Women,	Women, Infants, and Children Services
Infants, and Children Program	Division of Family Health Services
	New Jersey Department of Health and Senior Services
Childhood Vaccinations	National Immunization Survey
	Centers for Disease Control and Prevention
	United States Department of Health and Human Services
	Contact: Division of Communicable Diseases
	New Jersey Department of Health and Senior Services
*MCO Enrollees	Health Plan Employer Data and Information Set
	Division of Health Care Systems Analysis
	New Jersey Department of Health and Senior Services
Immunization Information System	Electronic Birth Certificate System
Enrollment	Division of Family Health Services
	New Jersey Department of Health and Senior Services
Measles Incidence	Vaccine-Preventable Diseases Program
	Communicable Disease Services
	Division of Epidemiology, Environmental and
	Occupational Health
	New Jersey Department of Health and Senior Services
Lead Screening	Division of Family Health Services
	New Jersey Department of Health and Senior Services
Newborn Hearing Screening	Electronic Birth Certificate System
	Division of Family Health Services
	New Jersey Department of Health and Senior Services
Newborn Hearing Loss Follow-Up	Division of Family Health Services
(Developmental)	New Jersey Department of Health and Senior Services
Elementary School Proficiency Assessment	Elementary School Proficiency Assessment
(Developmental)	Office of Standards and Professional Development
	Division of Academic Programs and Standards
	New Jersey Department of Education
Grade Eight Proficiency Assessment	Grade Eight Proficiency Assessment
(Developmental)	Office of Standards and Professional Development
	Division of Academic Programs and Standards
	New Jersey Department of Education

High School Proficiency Assessment
    (Developmental)

High School Proficiency Assessment
Office of Standards and Professional Development
Division of Academic Programs and Standards
New Jersey Department of Education

Substance Use Among Middle School Students
    * Tobacco
    * Alcohol
    * Marijuana
    * Inhalants

"The New Jersey Middle School Survey on Substance Use"
Research and Information Systems
Division of Addiction Services
New Jersey Department of Health and Senior Services

Substance Use Among High School Students
    * Tobacco
    * Alcohol
    * Marijuana
    * Cocaine
    * Inhalants

"Drug and Alcohol Use Among New Jersey High School
    Students"
Division of Criminal Justice
New Jersey Department of Law and Public Safety

Teen Age Fertility

New Jersey Resident Birth Certificates
Center for Health Statistics
New Jersey Department of Health and Senior Services

Deaths by Cause, Age, Race, and/or Sex

New Jersey Resident Death Certificates
Center for Health Statistics
New Jersey Department of Health and Senior Services

Health Behaviors
    * Daily Consumption of Fruits
      and Vegetables
    * Overweight and Obesity
    * Participation in Physical Activity
    * Seat Belt Usage
    * Blood Cholesterol Checks
    * Diabetes Screening (Developmental)
    * Blood Pressure Control with Diabetes (Developmental)
    * Glycosylated Hemoglobin Measurement with Diabetes
    * Clinical Breast Exam and Mammogram
    * Pap Test
    * Good Mental Health Days
    * Adult Cigarette Smoking Prevalence
    * Adult Alcohol Consumption
    * Fecal Occult Blood Test/Sigmoidoscopy

New Jersey Behavioral Risk Factor Surveillance System
Center for Health Statistics
New Jersey Department of Health and Senior Services

Occupational Health Data
    * Construction Industry Deaths
    * Blood Lead Exposure
    * Latex-Allergy Prevention
    * Hepatitis B Vaccinations

Occupational Health Services
Division of Epidemiology, Environmental and
Occupational Health
New Jersey Department of Health and Senior Services

Incidence of Traumatic Brain Injuries	Traumatic Brain Injury Surveillance System Center for Health Statistics New Jersey Department of Health and Senior Services
Nursing Home/Home and Community Based Services Spending Ratio	Division of Consumer Support and Division of Senior Affairs New Jersey Department of Health and Senior Services
Health Status of Non-Institutionalized Seniors	New Jersey Behavioral Risk Factor Surveillance System Center for Health Statistics New Jersey Department of Health and Senior Services

Vaccinations of Non-Institutionalized Seniors
    * Pneumococcal
    * Influenza
	New Jersey Behavioral Risk Factor Surveillance System
	Center for Health Statistics
	New Jersey Department of Health and Senior Services

Vaccinations of Institutionalized Seniors (Developmental)	Minimum Data Set Division of Long Term Care Systems Development and Quality New Jersey Department of Health and Senior Services

Long-Term Care Facility Data
    * Fall Incidence (Developmental)
    * Decubiti Prevalence (Developmental)
    * Polypharmacy (Developmental)
	Minimum Data Set
	Division of Long Term Care Systems Development
	and Quality
	New Jersey Department of Health and Senior Services

Dilated Eye Exams Among Persons
    with Diabetes
 	
    * MCO Enrollees
	New Jersey Behavioral Risk Factor Surveillance System
	Center for Health Statistics
	New Jersey Department of Health and Senior Services
	Health Plan Employer Data and Information Set
	Division of Health Care Systems Analysis
	New Jersey Department of Health and Senior Services

Lower Extremity Amputations Among
    Persons with Diabetes
	Uniform Billing Patient Summary
	Division of Health Care Systems Analysis
	New Jersey Department of Health and Senior Services
	                    and
	Diabetes Control Program
	Division of Family Health Services
	New Jersey Department of Health and Senior Services

End-Stage Renal Disease as a
    Complication of Diabetes
	Trans-Atlantic Renal Council
	Cranbury, New Jersey
	                    and
	Diabetes Control Program
	Division of Family Health Services
	New Jersey Department of Health and Senior Services

Early Diagnosis of Breast Cancer	New Jersey Cancer Registry Cancer Epidemiology Services Division of Epidemiology, Environmental and Occupational Health New Jersey Department of Health and Senior Services

Cancer Incidence
    * Invasive Cervical
    * Rectum and Rectosigmoid
    * Invasive Melanoma
	New Jersey Cancer Registry
	Cancer Epidemiology Services
	Division of Epidemiology, Environmental and
	Occupational Health
	New Jersey Department of Health and Senior Services

HIV Disease Data
    * Knowledge of Infection
    * Incidence by Age, Race,
      Ethnicity, and/or Sex
    * HIV Positive Readings in Mothers
      of Newborns
	Epidemiological Services
	Division of AIDS Prevention and Control
	New Jersey Department of Health and Senior Services

Non-emergency, Inpatient Psychiatric Hospital Admissions	Unified Services Transactions Form Division of Mental Health Services New Jersey Department of Human Services
Readmissions to Children's Crisis Intervention Services	Crisis Intervention Service Reports Division of Mental Health Services New Jersey Department of Human Services
Parent Participation in Site Reviews of Youth Programs	Bureau of Licensing Reports of the Office of Children's Services Designation Reports Division of Mental Health Services New Jersey Department of Human Services
Criminal Justice System Mental Health Services	Unified Services Transaction Form Division of Mental Health Services New Jersey Department of Human Services
Estimated Tobacco-Related Mortality	New Jersey Resident Death Certificates Center for Health Statistics New Jersey Department of Health and Senior Services and Smoking-Attributable Mortality, Morbidity, and Economic Costs software Centers for Disease Control and Prevention United States Department of Health and Human Services
Alcohol-Related Motor Vehicle Death Data	Fatal Accident Reporting System Division of Highway Traffic Safety New Jersey Department of Law and Public Safety

Estimated Alcohol-Related Mortality

New Jersey Resident Death Certificates
Center for Health Statistics
New Jersey Department of Health and Senior Services
      and
Morbidity and Mortality Weekly Report (March 23, 1990)
Centers for Disease Control
United States Department of Health and Human Services

Asthma Hospitalizations

Uniform Billing Patient Summary
Division of Health Care Systems Analysis
New Jersey Department of Health and Senior Services

Asthma Emergency Department Visits
    (Developmental)

Uniform Billing Patient Summary
Division of Health Care Systems Analysis
New Jersey Department of Health and Senior Services

Infectious Disease Incidence
    * Tuberculosis
    * Lyme Disease

Communicable Disease Services
Division of Epidemiology, Environmental and
Occupational Health
New Jersey Department of Health and Senior Services

Tuberculosis Curative Therapy

Communicable Disease Services
Division of Epidemiology, Environmental and
Occupational Health
New Jersey Department of Health and Senior Services

Sexually Transmitted Disease Incidence
    * Chlamydia Trachomatis
    * Gonorrhea
    * Primary and Secondary Syphilis
    * Congenital Syphilis

Communicable Disease Services
Division of Epidemiology, Environmental and
Occupational Health
New Jersey Department of Health and Senior Services

Local Health Department Data
    * Core Functions
    * Community Health Plan Development
      (Developmental)
    * Staffing Standards (Developmental)
    * Public Health and Environmental
      Laboratory Standards (Developmental)
    * Epidemiology Services Standards
      (Developmental)

Office of Local Health
New Jersey Department of Health and Senior Services

Local Health Department Internet Access

Survey of Local Health Department Information
Technologies
Office of Local Health
New Jersey Department of Health and Senior Services

Local Health Department LINCS Participation

New Jersey Institute of Technology
Newark, New Jersey

Table 2. Healthy New Jersey 2010 Data Sources by Number of Objectives Tracked

Data System/Source	Number of Objectives Tracked*
Vital Statistics System – Mortality	31[1/]
Behavioral Risk Factor Surveillance System	23
Vital Statistics System – Natality	10
NJDHSS Office Of Local Health	7
UB-92 Hospital Discharge File	6
New Jersey Department of Environmental Protection	5
NJDHSS Communicable Disease Service-Sexually Transmitted Diseases Management Information System	5
NJDHSS Aids Registry	5
NJDHSS Long Term Care Systems Development-Minimum Data Set	5
NJDHSS Occupational Health Services	4
NJDHSS Communities That Care Middle School Survey	4
NJDHSS Cancer Registry	4
NJDHSS Consumer And Environmental Health Services	4
New Jersey Department of Education, Division of Academic Programs and Standards	3
HEDIS	3
U.S. Bureau of the Census-Current Population Survey	2
NJDHSS Lead Surveillance System	2
New Jersey Department of Law and Public Safety	2
NJDHSS Family Health Services	2
NJDHSS Communicable Disease Service-NETSS	2
NJDHSS Communicable Disease Service-Tuberculosis Information System (TIMS)	2
NJDHSS Health Information Steering Committee	2
NJDHSS WIC Program	1
CDC Immunization Survey	1
NJDHSS New Jersey Immunization Information System	1
NJDHSS TBI Surveillance System	1
NJDHSS Survey of Child Bearing Women	1
NJDHSS Division of Consumer Support	1
Trans-Atlantic Renal Council	1
New Jersey Department of Law and Public Safety Division of Highway Traffic Safety	1
New Jersey Institute of Technology	1
NJDHSS Emergency Room Data File**	1
NJDHSS Office of Information Technology Services	1
NJDHSS Center for Health Statistics	1

[1/] 29 objectives tracked through the state's single cause of death file and two through the multiple cause-of-death file.
* Preliminary count. Includes sources of data for tracking developmental objectives.
** Data source under development.

ADULT BLOOD LEAD EPIDEMIOLOGY AND SURVEILLANCE (ABLES) SYSTEM

FUNDING SOURCE   U.S. Department of Health and Human Services, Centers for
                                  Disease Control and Prevention, National Institute for Occupational
                                  Safety and Health and the New Jersey Department of Health and
                                  Senior Services

MODE OF ADMINISTRATION   Data are collected through an active surveillance system of elevated
                                  blood-lead levels in New Jersey adults. Data sources include
                                  clinical laboratory reports, physician reports, and in some
                                  instances, company reports. Reporting of blood-lead levels by
                                  clinical laboratories and physicians is mandated by N.J.A.C. 8:44-
                                  2.11. Using standardized forms, laboratories and physicians report
                                  data that are collected and entered into three major database files,
                                  where they are available for management and analysis by NJDHSS
                                  staff. Follow-up telephone calls are made to laboratories,
                                  physicians, and employers to obtain information missing from the
                                  report.

YEARS OF DATA COLLECTED   New Jersey has collected blood-lead level data, on an ongoing
                                  basis, since 1985.

RESPONSE RATES   N/A

FILE CONTENT   Date and result of blood-lead level test. Name, address, telephone
                                  number, gender, and date of birth of the tested individual. Race
                                  and Hispanic ethnicity are collected for those individuals with
                                  blood-lead levels $\geq$40 Fg/dL. Name of the laboratory, name and
                                  address of the employer, and name and address of the physician
                                  who requested the test.

TARGETED POPULATION   All workers employed in New Jersey companies.

DEMOGRAPHIC DATA   Gender and age. Workers reported for the first time with a blood-
                                  lead level $\geq$40 Fg/dL are interviewed, and the following additional
                                  demographic data are collected: race, Hispanic ethnicity, and
                                  primary language.

SCHEDULE   Ongoing

GEOGRAPHIC ESTIMATES   Statewide

(NEW JERSEY) BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM (BRFSS)

FUNDING SOURCE	U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC), National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP) and the New Jersey Department of Health and Senior Services
MODE OF ADMINISTRATION	Telephone interview
YEARS OF DATA COLLECTED	New Jersey has collected BRFSS data annually since 1991.
SURVEY SAMPLE DESIGN	The first BRFSS survey was conducted in 1984 with 15 states participating. All 50 states and the District of Columbia have participated since 1996. The sample design uses State-level random digit-dialed probability samples of the adult population 18 years of age and over. The current New Jersey sample design is disproportionate stratified random sampling. The New Jersey annual sample size has ranged from 1,500 to approximately 3,800.
RESPONSE RATES	The response rate varies from year to year. In 1999, the upper-bound response rate was 55%.
SURVEY CONTENT	The survey consists of a core of questions asked in all states, optional questions on selected topics identified by CDC and administered at the state's discretion, a rotating core of questions asked every other year in all states, and state questions developed to address state-specific needs. Questions cover behavioral risk factors, preventive health measures, health status, limitation of activity, and health care access and utilization.
TARGETED POPULATION	Civilian noninstitutionalized population 18 years of age and older who reside in households with telephone.
DEMOGRAPHIC DATA	Gender, age, educational attainment, race/ethnicity, household income, employment status, and marital status
SCHEDULE	Ongoing. Reported annually
GEOGRAPHIC ESTIMATES	Statewide

BLOODBORNE PATHOGENS EXPOSURE CONTROL PLAN SURVEY

FUNDING SOURCE   New Jersey Department of Health and Senior Services

MODE OF ADMINISTRATION   Mass mailing

YEARS OF DATA COLLECTED   Will initiate mass mailing in 2001.

SURVEY SAMPLE DESIGN   The sample size will be approximately 3,000.

RESPONSE RATES   Not applicable, mass mailing will be conducted in June 2001.

SURVEY CONTENT   The survey consists of questions pertaining to the following areas of the Bloodborne Pathogens Standard: designated person, exposure determination, vaccinations and completion of vaccination series, engineering controls, personal protective equipment and training.

TARGETED POPULATION   Public employees in New Jersey who are exposed or potentially exposed to bloodborne pathogens.

DEMOGRAPHIC DATA   None

SCHEDULE   First mass mailing to be completed in June 2001.

GEOGRAPHIC ESTIMATES   Statewide

(NEW JERSEY STATE) CANCER REGISTRY (NJSCR)

FUNDING SOURCE

Centers for Disease Control and Prevention (CDC) and the
New Jersey Department of Health and Senior Services

MODE OF ADMINISTRATION

Hospitals are the primary source of data. Hospital tumor registries
are responsible for gathering data from all internal sources
including admissions, pathology, radiology and patient charts and
sending data, electronically, to the NJSCR. Physicians and
laboratories are also responsible, by law, for sending data on non-
hospitalized cases to the NJSCR. Information on New Jersey
residents diagnosed and/or treated out of state is obtained via
reciprocal reporting agreements.

YEARS OF DATA COLLECTED

New Jersey has collected cancer incidence data since October
1978.

COVERAGE

Completeness is estimated at 100 percent by the North American
Association of Central Cancer Registries.

FILE CONTENT

The tumor record contains over 200 fields of clinical data including
date of diagnosis, date of birth, primary site, histology, grade,
laterality, behavior, summary stage, first course of treatment
(surgical, radiation, chemotherapy), and vital status.

TARGETED POPULATION

New Jersey residents at the time of diagnosis

DEMOGRAPHIC DATA

Gender, age at diagnosis, date of birth, date of last follow-up or
death, race/ethnicity, marital status, industry, occupation, address

GEOGRAPHIC ESTIMATES

State, county, municipality, street address at diagnosis and last
follow-up. Geocoding of addresses is in process.

CENSUS OF FATAL OCCUPATIONAL INJURIES (CFOI)

FUNDING SOURCE   U.S. Department of Labor, Bureau of Labor Statistics, and the New Jersey Department of Health and Senior Services

MODE OF ADMINISTRATION   Data are collected through an active surveillance system of work-related fatal injuries. Formal and informal agreements are in place with the State Medical Examiner, the Occupational Safety and Health Administration (OSHA), and other state and federal agencies. A newspaper clipping service is contracted to search for news articles about fatal and serious occupational injuries. These agencies and the clipping service notify the Occupational Health Services of work-related fatalities and provide detailed information. Construction-related fatalities are identified through the collection of industry and occupation information on the fatality.

YEARS OF DATA COLLECTED   In New Jersey, the first data were collected under the guidelines of the Census of Fatal Occupational Injuries in 1991. All states and territories joined the project in 1992 and the first national Census was published for the year 1992. The protocol and database were designed by the Bureau of Labor Statistics.

RESPONSE RATES   Not applicable for this project

FILE CONTENT   The Bureau of Labor Statistics requires specific information about each fatality. Additional information is encouraged. Information is collected on demographics, country of birth, descriptions of the incidents, injuries, and employment characteristics is collected to verify that the fatal injury was work-related as defined by the study protocol and to describe details about the fatal incidents.

TARGETED POPULATION   All work-related injuries that occur in New Jersey, and result in the death of the worker. The injury must have occurred in New Jersey but the death may have occurred in another state.

DEMOGRAPHIC DATA   Gender, age, race, Hispanic ethnicity, county of birth

SCHEDULE   Ongoing. The year is finalized by July 1 of the following year (July 1, 2000 for the 1999 data). Data are reported and published annually.

GEOGRAPHIC ESTIMATES   Statewide

(NEW JERSEY) COMMUNITIES THAT CARE MIDDLE SCHOOL SURVEY

FUNDING SOURCE   The New Jersey Department of Health and Senior Services

MODE OF ADMINISTRATION   Self-administered paper and pencil survey

YEARS OF DATA COLLECTED   1995, 1999 and yearly starting in 2000

SURVEY SAMPLE DESIGN   The sample design uses a list of all middle schools in the State (public and private) for a sampling frame. In the most recent survey (1999), schools were stratified first by county and then by three school size groups (small, medium and large). Two schools were then selected from each size group in the sample. A total of 101 schools were selected of which 54 agreed to participate and only 41 returned completed survey forms. All students in selected schools were invited to participate in the survey. The 1999 survey collected data from 9,387 middle school students.

RESPONSE RATES   School participation rate was 40.6% while student participation rate was about 98%.

SURVEY CONTENT   The survey instrument contains core questions on alcohol, tobacco and other drug use (ATOD) and several modules to assess risk and protective factors suggested by Catalano and Hawkins.

TARGETED POPULATION   Middle school students in public and private schools of the State

DEMOGRAPHIC DATA   Gender, age, grade, race, Hispanic or Latino origin, parental marital status, marital, living arrangement

SCHEDULE   Reported approximately 4-6 months after the completion date of the survey

GEOGRAPHIC ESTIMATES   Statewide. County and school level estimates also available starting with the 1999 survey for participating schools and for counties which were adequately represented in the survey.

FUNDING SOURCE

U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC), National Center for HIV, STD, AND TB Prevention, Division of HIV/AIDS Prevention (DHAP) and the New Jersey Department of Health and Senior Services

MODE OF ADMINISTRATION

CDC designed case report forms are completed by providers, and/or NJDHSS staff, based on review of medical records. Also, records are updated based on laboratory reports received from testing laboratories.

YEARS OF DATA COLLECTED

1981 to present

RESPONSE RATES

Population based system of reporting, mandated by both statute and regulation. Evaluations of completeness consistently greater than 90%.

FILE CONTENT

Demographic information, exposure information, laboratory results, clinical status, and treatment/services referrals

TARGETED POPULATION

All New Jersey residents diagnosed with HIV infection

DEMOGRAPHIC DATA

Gender, age, race/ethnicity, mortality status, mode of transmission, year of diagnosis and report

SCHEDULE

Ongoing

GEOGRAPHIC ESTIMATES

State, county, municipality

FUNDING SOURCE

New Jersey Department of Health and Senior Services and New Jersey acute care hospitals

MODE OF ADMINISTRATION

Discharge records are completed by hospital medical record and billing departments. Demographic information on the bill is collected by an admitting clerk based on information supplied by an informant. The NJDHSS collects a subset of this information for inpatients and same day surgery outpatients.

YEARS OF DATA COLLECTED

New Jersey has collected discharge records since 1982 through a number of changes in the discharge record format. The most recent standard, UB-92, was implemented in 1994.

RESPONSE RATES

Reporting of inpatient and same day surgery outpatient discharges is essentially complete.

FILE CONTENT

Hospital, month, day and year of admission and discharge, state, county and municipality of residence, age at hospitalization, Hispanic origin, race, marital status, ICD-9-CM diagnosis and procedure codes, charges, diagnosis related group and other information. For a complete list, go to http://www.state.nj.us/health/hcsa/ub92.htm

TARGETED POPULATION

Acute care hospital inpatients and same day surgery outpatients

DEMOGRAPHIC DATA

Gender, age, race/ethnicity, employment status, and marital status

SCHEDULE

Reported quarterly

GEOGRAPHIC ESTIMATES

State, county, municipality

MINIMUM DATA SET (MDS)

FUNDING SOURCE   Health Care Financing Authority (HCFA)

MODE OF ADMINISTRATION   HCFA through contractual relationship with the State

YEARS OF DATA COLLECTED   Since June 1998 (statewide)*

SURVEY SAMPLE DESIGN   100% reporting by LTC facilities

RESPONSE RATES   100% transmittal of the data by facilities per required monthly
                               schedule.

SURVEY CONTENT   MDS content is available at www.hcfa/gov/medicaid/mds20

TARGETED POPULATION   All residents of nursing facilities

DEMOGRAPHIC DATA   See Web site www.hcfa.gov/medicaid/mds20

SCHEDULE   Resident information is transmitted quarterly, and at time of
                               significant change in residents' health status. For Medicare
                               residents, schedule is according to the prospective payment system
                               (PPS) schedule.

GEOGRAPHIC ESTIMATES   By facility by zip code of the resident's prior residence

*Note: In the case of private facilities, a small number were not required to submit until July of 1999.

RADIATION AND AIR QUALITY SYSTEM (RAQS) - NJDEP
AEROMETRIC INFORMATION RETRIEVAL SYSTEM (AIRS) - USEPA

REGULATORY BASIS

Mandated by the Clean Air Act in 1970 and regulated in the Code of Federal Regulations, Title 40, Parts 50 and 58

YEARS OF DATA COLLECTED

Particulate matter, lead and sulfur dioxide - began in 1965
Carbon monoxide and nitrogen dioxide - began in 1966
Ozone - began in 1973

SURVEY COLLECTION SCHEDULE

Carbon monoxide, nitrogen dioxide, sulfur dioxide and ozone are collected continuously (long-term data storage is 15-minute averages for RAQS and hourly averages for AIRS)

SAFE DRINKING WATER INFORMATION SYSTEM (SDWIS)

REGULATORY BASIS   Mandated by Federal safe drinking water regulations (40 CFR 142)

YEARS OF DATA COLLECTED   Collection began around 1977.

SURVEY CONTENT   SDWIS contains core violation and inventory data. Data on
                                Radiological data are kept in an internal New Jersey Department of
                                Environmental Protection database.

SURVEY COLLECTION   Microbiological monitoring - monthly or quarterly
                                Chemical monitoring - quarterly
                                Radiological monitoring - quarterly

TARGETED POPULATION   All New Jersey residents served by community water systems

SEXUALLY TRANSMITTED DISEASE MANAGEMENT INFORMATION SYSTEM

FUNDING SOURCE

U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC), National Center for HIV, STD AND TB Prevention and the New Jersey Department of Health and Senior Services

MODE OF ADMINISTRATION

The Confidential Sexually Transmitted Disease Report form is completed by physicians, nurses, institutional superintendents and other persons treating a venereal disease and reported to the New Jersey Department of Health and Senior Services, Sexually Transmitted Disease Program (STDP). All New Jersey laboratories are required to report positive laboratory tests for syphilis, gonorrhea, and chlamydia to the STDP.

YEARS OF DATA COLLECTED

New Jersey started to require reporting of venereal diseases in 1917. New Jersey has continued to collect these reports since that time, through a number of format changes. The most recent regulation was in 1995 and is scheduled to be replaced in 2000.

RESPONSE RATES

Laboratories and providers are surveyed to determine compliance with regulations.

FILE CONTENT

Date of report, name, phone number, address, age, birth date, pregnancy status, gender, race/ethnicity, disease type, name, address and phone number of the provider/physician, laboratory test and treatment.

TARGETED POPULATION

Entire state population

DEMOGRAPHIC DATA

Address, gender, age and race/ethnicity

SCHEDULE

Reported annually

GEOGRAPHIC ESTIMATES

State, county, municipality

SURVEY OF LATEX ALLERGY MANAGEMENT PRACTICES
AMONG NEW JERSEY HEALTH CARE FACILITIES

FUNDING SOURCE   New Jersey Department of Health and Senior Services

MODE OF ADMINISTRATION   Mailed survey

YEARS OF DATA COLLECTED   Began in year 2000

SURVEY SAMPLE DESIGN   The survey will be mailed to the employee health managers of all
                                  New Jersey acute-care and surgical hospitals.

RESPONSE RATES   It is anticipated that the survey will achieve a 100% response rate.

SURVEY CONTENT   Survey questions will address the following: 1) potential for latex
                                  allergy at each health care facility, and 2) facility policies that are in
                                  place to manage latex allergy among employees and patients.

TARGETED POPULATION   All New Jersey acute-care and surgical hospitals

DEMOGRAPHIC DATA   No demographic data will be collected.

SCHEDULE   Initial survey mailed in late 2000 and a follow-up survey will be
                                  mailed in early 2001.

GEOGRAPHIC ESTIMATES   Statewide

FUNDING SOURCE

U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS) and the New Jersey Department of Health and Senior Services

MODE OF ADMINISTRATION

The death certificates are administrative records completed by physicians, medical examiners, and funeral directors and filed with the state vital statistics office. Demographic information on the death certificate is collected by the funeral director based on information supplied by an informant. Medical certification of cause of death is provided by a physician or medical examiner.

YEARS OF DATA COLLECTED

New Jersey, along with Massachusetts, the District of Columbia, and several large cities that had efficient systems for death registration, was part of the first national death "registration area" created in 1880. New Jersey has continued to collect death records since that time, through a number of changes in the death record format and several versions of the classification system for cause of death. The most recent standard certificate was implemented in 1989 and will be replaced in 2003 with a revised format. The manual for coding cause of death that had been in effect from 1979 through 1998, ICD-9, has been superceded by a new version, ICD-10, as of January 1999.

RESPONSE RATES

Reporting of deaths is essentially complete.

FILE CONTENT

Month, day and year of death, state, county and municipality of residence, place death occurred, county and municipality of occurrence of death, age at death, Hispanic origin, race, marital status, injury at work, place of birth, gender, underlying and multiple causes of death, veteran status, industry and occupation, and educational attainment. Records of deaths that occurred outside the state of New Jersey residents are added to the file.

TARGETED POPULATION

The entire state population

DEMOGRAPHIC DATA

Gender, age, educational attainment, race/ethnicity, employment status, and marital status

SCHEDULE

Reported annually

GEOGRAPHIC ESTIMATES

State, county, municipality

FUNDING SOURCE

U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS) and the New Jersey Department of Health and Senior Services

MODE OF ADMINISTRATION

The birth certificates are administrative records completed by hospital personnel and attendants at delivery and filed with the state vital statistics office. Demographic information is provided by the mother. Medical and health information is based on hospital and other records.

YEARS OF DATA COLLECTED

New Jersey was admitted to the national birth registration system in 1921. Birth records have been collected since then in New Jersey with a number of changes in the format of the certificate. The most recent standard certificate was implemented in 1989. A new birth certificate will be introduced in 2003.

RESPONSE RATES

Reporting of births is essentially complete.

FILE CONTENT

Month, day and year of birth, plurality, place of birth, hospital of birth, county and municipality of birth occurrence, state, county and municipality of mother's residence, mother's place of birth, father's place of birth, attendant at birth, race and Hispanic origin of mother and father's educational attainment, number of previous live births to mother, number of other terminations to mother, marital status of mother, prenatal care onset and total visits, last normal menses, birth weight in grams, clinical estimate of gestation, Apgar scores, mother transferred, infant transferred, medical risk factors, obstetric procedures, complications of labor and/or delivery, method of delivery, abnormal conditions of the newborn and congenital anomalies. In 1997, New Jersey completed the implementation of an electronic birth certificate, which encompassed expanded information on the health status of the mother and child. Records of births that occurred outside the state to New Jersey mothers are added to the file.

TARGETED POPULATION

The entire population of live births in the state

DEMOGRAPHIC DATA

Gender of baby. Gender, race, Hispanic origin, age, educational attainment, and marital status of mother and father

SCHEDULE

Reported annually

GEOGRAPHIC ESTIMATES

State, county, municipality, zip code, census tract, census block group, census block number