



State of Delaware  
Office of the Governor

Ruth Ann Minner  
Governor

Dear Delaware Residents:

I am proud to support this exciting statewide plan for diabetes control and prevention. As one of our nation's most costly diseases, and with new diabetes cases now detected at epidemic proportions, there is no better time to reduce the economic, physical and emotional impact of diabetes.

An estimated 45,000 adult Delawareans had diabetes in 1998. Another 15,000 are estimated to have diabetes and not know it. Diabetes can cause adult blindness, kidney failure, heart disease, stroke and lower limb amputation. Type 2 diabetes has been increasingly found among our youth, pointing to a greater need for exercise and good nutrition. Diabetics and their families can avoid complications with proper education, nutrition, exercise and medical care.

More than 100 Delaware diabetes advocates helped develop this plan. The document provides specific goals, strategies and deadlines so we can prevent diabetes and its complications.

I look forward to seeing this plan put into action. Together we will improve access to health care while reducing health disparities for people with diabetes. Together, we'll work toward a healthier Delaware.

Sincerely,

A handwritten signature in cursive script that reads "Ruth Ann Minner".

Ruth Ann Minner  
Governor

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STATE OF DELAWARE  
OFFICE OF THE LIEUTENANT GOVERNOR

JOHN C. CARNEY, JR.  
LIEUTENANT GOVERNOR

November 2002

Dear Friends,

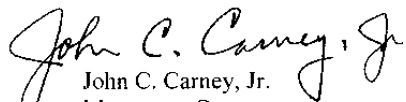
I am happy to celebrate the release of the Statewide Diabetes Control Plan, an extremely important tool in the effort to lower the incidence of diabetes in Delaware. Perhaps most importantly, it will give focus to the work of many who are trying to end the economic, physical and emotional impact this preventable disease has on individuals and families.

This plan will help enable those diagnosed with diabetes to better manage their disease and also will help identify those at risk and those who have gone un-diagnosed. By coordinating various efforts, like those of the Delaware Health Care Commission and the Division of Public Health's Diabetes Control Program, we can get the word out that diabetes can be a manageable disease.

Simple changes in lifestyle, such as healthier eating and increased physical activity, can greatly reduce someone's risk in developing diabetes. I hope to help in that area by promoting the Lt. Governor's Challenge, my initiative to get people to increase their daily physical activity.

We have a tradition in Delaware of joining together to get things done. The Statewide Diabetes Control Plan continues that tradition and is the start of our fight to end diabetes in Delaware. It's a battle we can win.

Sincerely,

  
John C. Carney, Jr.  
Lieutenant Governor

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**DELAWARE HEALTH  
AND SOCIAL SERVICES**

DIVISION OF PUBLIC HEALTH

OFFICE OF THE DIRECTOR

Dear Delaware Residents:

As director of Delaware's Division of Public Health, I am proud to announce the release of this Statewide Diabetes Control Plan.

We can all play a part in reducing the impact of diabetes in our state. Proper nutrition, frequent exercise and regular medical check ups are our first line of defense, whether we have diabetes or not. These measures will also prevent and control other chronic diseases. Should we or someone close to us be diagnosed with diabetes, hopefully we'll know what specialized diabetes services to access and do so quickly, smoothly, and with minimal effort. By taking these steps, we'll reduce the risk for developing painful, life-altering and costly complications.

Many diabetes advocates helped develop the strategies in this report that reduce the devastating effects of this disease. Ideas for future diabetes care are also included.

When you read Delaware's plan, please consider how you can help improve the quality of life of people with diabetes while helping others avoid the risk of developing this disease. Perhaps you could sponsor a diabetes screening through a school, business or organization in your community. Also, I invite you to join the Delaware Diabetes Coalition. For more information, call 302-430-5088.

Sincerely,

Ulder J. Tillman, M.D., M.P.H.  
Director

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## FOREWORD

Delaware's Diabetes Control Program (DCP) was established in 1997 with the mission to decrease the state's emotional, physical, and financial burden of diabetes by preventing the disease and reducing its complications. The program is currently funded as part of Delaware Health and Social Services, Division of Public Health through a grant from the Centers for Disease Control and the Delaware Health Fund.

### **Background**

A May 1999 Delaware Health Care Commission (DHCC) Task Force issued a report to the Delaware General Assembly identifying the barriers to the diagnosis and treatment of diabetes in Delaware and options for overcoming these barriers.

The DHCC Diabetes Task Force has since evolved into the Delaware Diabetes Coalition which serves as an informal advisory body to the Diabetes Control Program. The Coalition's membership includes health care professionals, non-profit organizations, insurance companies, diabetes advocates, community members and people with diabetes. By partnering together the Coalition and the Diabetes Control Program work to improve care for people with diabetes and their families.

Since partnering the state efforts have been targeted in a few key areas. The state's Diabetes Control Program activities include:

- Working with the Delaware Department of Education to provide annual diabetes updates and training to school nurses and staff
- Reaching Delaware's high-risk communities by placing Certified Diabetes Educators in our federally qualified health centers
- Training state workers who serve people with diabetes in the community
- Developing a targeted media campaign that includes television, radio, print and billboards
- Developing worksite education programming, by targeting employers with the key messages of support for employees with diabetes
- Providing resource guides, in Spanish and English, for people with diabetes and resource guides for health care professionals and employers

In addition, in March 2002, the Coalition released a report entitled "The Burden of Diabetes in Delaware" that discounts the alarming reach and impact of diabetes in our state.

There has been renewed focus on diabetes at the federal level as well. In 1999, Delaware adopted several National Objectives in addressing diabetes in the state. These objectives are designed to establish ways to track program successes in the following areas:

### **National/State Impact Objectives:**

1. Increase the percentage of persons with diabetes who receive recommended foot exams.
2. Increase the percentage of persons with diabetes that receive the recommended eye exams.



3. Increase the percentage of persons with diabetes that receive the recommended influenza and pneumococcal vaccines.
4. Increase the percentage of persons with diabetes that receive the recommended HgA1C tests.
5. Reduce health disparities for high-risk populations with respect to diabetes prevention and control.
6. Establish useful programs for promotion of wellness, physical activity, weight and blood pressure control, and smoking cessation for persons with diabetes.



### ***The Planning Process***

In an effort to meet these objectives the state Diabetes Control Program and the Delaware Diabetes Coalition called on several key stakeholders to develop an action plan to identifying the needs and gaps for Delaware to provide quality care for Delawareans who have diabetes.

The Delaware Diabetes Action Plan is based on fact, research and the opinions of key stakeholders representing diabetes advocates, consumers, government, businesses, medical provider community, and community health providers.

The Delaware Division of Public Health's Diabetes Control Program provided oversight and guidance for the strategic planning session and the preparation of this report. More than 125 representatives from the broad stakeholder community participated in the two-day strategic planning session, lending their expertise, and expressing opinions and ideas in 10 workshops representing different areas of focus for diabetes planning. In addition, personal interviews were conducted with diabetes advocates across the state. Through this process the statewide plan was developed.





As a result of this planning process ten focus areas were selected as ways the state can meet our stated objectives.

- **Access to Care:** Increase opportunities for access to health care for management of diabetes.
- **Community Intervention and Program Development:** Develop effective interventions to increase awareness, and prevention of the disease and its complications.
- **Communication and Coordination:** Develop effective communication regarding diabetes activities, programs, and data for the community and health providers.
- **Data Surveillance:** Collect reliable data that is for the purpose of determining needs, identifying gaps, and for the evaluation of our success in meeting the goals and objectives.
- **Diabetes and the Aging:** Provide effective programs for our older adults and reduce the morbidity and mortality that older Delawareans experience with diabetes.
- **Diabetes and the Workplace:** Provide health-care coverage, reduce disabilities, increase productivity, and keep our employees healthy.
- **Diabetes and Youth:** Educate our youth about healthy behaviors and reduce the risk of developing Type 2 Diabetes.
- **Health Disparities:** Reaching out to those who are at high risk for both the development of diabetes and its complications.
- **Medical Providers:** Educate health care providers and support the use of both the American Diabetes Association's / Standards of Care and Medical Society of Delaware's / Practice Guidelines for Diabetes Care.
- **Prevention:** Prevent both the development of diabetes and / or its complications and recognize the increased risk for our youth developing Type 2 Diabetes.

We thank all of our partners who participated in developing this statewide plan and for the funding provided by the Delaware Health Care Commission with financial support from the Delaware Health Fund. The statewide diabetes control plan outlines a strategic course of action from 2003 through to the year 2010. It is time now to work together and take action on diabetes in the public health system, work sites, medical care system and communities. The foundation has been established through the dedication of these partners who developed a course of action for the state of Delaware. By implementing this action plan we can greatly reduce the burden of diabetes in the state. We greatly appreciate all of those who took part in developing this statewide plan and their support on achieving the goals and objectives of the Delaware Diabetes Control Program.



**DELAWARE HEALTH  
AND SOCIAL SERVICES**

**DIVISION OF PUBLIC HEALTH**

**Diabetes Control Program  
302-744-4544**



## WHY PLAN FOR ACTION?

### An executive summary of *The Burden of Diabetes in Delaware*

More than one in twenty Delawareans has been diagnosed with diabetes, and Delaware's rate of diabetes is high compared with most other states. *The Burden of Diabetes in Delaware* quantifies the impact of the epidemic of diabetes on our state between 1995 and 1999. It presents information on the number of people with diabetes, their characteristics, and the consequences of the disease.

For a copy of *The Burden of Diabetes in Delaware*, call the Delaware Division of Public Health's Diabetes Control Program at 302-744-4544.



**Table 1.**

Estimated Prevalence <sup>1</sup> of Diabetes by Gender, Race, Diagnosis Status and Rate Delaware 1998 (Age ≥ 18)					
	DELAWARE POPULATION	ESTIMATED DIAGNOSED	ESTIMATED UNDIAGNOSED	TOTAL PREVALENCE <sup>2</sup> NUMBER	RATE <sup>3</sup>
<b>Gender</b>					
Male	269,578	14,138	7,283	21,421	79.5
Female	295,283	16,380	8,438	24,818	84.0
<b>Race</b>					
Caucasian	432,326	21,416	11,032	32,448	75.1
African American	96,918	6,982	3,597	10,579	109.2
Other	35,617	2,120	1,092	3,212	90.2
<b>DE Total</b>	<b>564,861</b>	<b>30,518</b>	<b>15,721</b>	<b>46,239</b>	<b>81.9</b>

<sup>1</sup> Synthetic estimates calculated from Delaware population estimates from the U.S. Bureau of the Census 1998 population estimates and diabetes prevalence estimates for the United States from the 1998 NHIS.  
<sup>2</sup> Numbers may not add to total because of rounding.  
<sup>3</sup> Rate/1000.

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**Table 2.**

Estimated Prevalence <sup>1</sup> of Diagnosed and Undiagnosed Diabetes by Age, Gender, and Rate Delaware 1998							
AGE:	18-24	25-34	35-44	45-54	55-64	65+	TOTAL <sup>2</sup>
<b>GENDER AND DIAGNOSIS STATUS</b>							
<b>Male</b>							
Population	33,138	57,433	63,145	45,577	29,621	40,664	<b>269,578</b>
Diagnosed	156	689	1,686	3,022	3,169	5,416	<b>14,138</b>
Undiagnosed	80	355	868	1,557	1,633	2,790	<b>7,283</b>
Total Prevalence	236	1,044	2,554	4,579	4,802	8,206	<b>21,421</b>
Rate <sup>3</sup>	7.1	18.2	40.4	100.5	162.1	201.8	<b>79.5</b>
<b>Female</b>							
Population	33,916	59,054	65,012	48,330	32,041	56,930	<b>295,283</b>
Diagnosed	231	632	1,547	2,605	3,617	7,748	<b>16,380</b>
Undiagnosed	119	326	797	1,342	1,863	3,991	<b>8,438</b>
Total Prevalence	350	958	2,344	3,947	5,480	11,739	<b>24,818</b>
Rate <sup>3</sup>	10.3	16.2	36.1	81.7	171.0	206.2	<b>84.0</b>
<b>Delaware</b>							
Population	67,054	116,487	128,157	93,907	61,662	97,594	<b>564,861</b>
Diagnosed	387	1,321	3,233	5,627	6,786	13,164	<b>30,518</b>
Undiagnosed	199	681	1,665	2,899	3,496	6,781	<b>15,721</b>
Total Prevalence	586	2,002	4,898	8,526	10,282	19,945	<b>46,239</b>
Rate <sup>3</sup>	8.7	17.2	38.2	90.8	166.7	204.4	<b>81.9</b>

<sup>1</sup> Synthetic estimates calculated from Delaware population estimates from the U.S. Bureau of the Census 1998 population estimates and diabetes prevalence estimates for the United States from the 1998 NHIS.  
<sup>2</sup> Numbers may not add to total because of rounding.  
<sup>3</sup> Rate/1000.



## PLAN SO PEOPLE WON'T GET DIABETES

### Diabetes Prevalence

Two different data sources yielded similar estimates of the number of Delawareans with diabetes.

The Behavioral Risk Factor Survey and the National Health Interview Survey suggest that there were over 45,000 people in Delaware with diabetes in 1998: 30,000 who have been diagnosed, and another 15,000 who have not yet been diagnosed and are unaware that they have the disease. Diabetes affected more women than men. Most diabetes occurred in persons over age 65. African Americans had a higher rate of diabetes than other racial/ethnic groups. In 1996 Delaware ranked 7th among all the states in age-adjusted prevalence of diabetes.

## PLAN TO PREVENT PEOPLE FROM GETTING COMPLICATIONS FROM DIABETES

### Morbidity Due to Diabetes

Diabetes is a serious disease, requiring extensive medical monitoring and lifelong treatment. It is a common cause of disability and death in Delaware. During 1995-99, diabetes was directly responsible for more than 5,000 hospitalizations in Delaware; it was implicated as a secondary diagnosis in almost ten times as many cases. One

Table 3.

Hospital Discharges with Diabetes as the Primary Diagnosis or any Secondary Diagnosis Delaware 1995-1999			
PRIMARY DIAGNOSIS BY ICD-9-CM CODE	PRIMARY NUMBER (%)	SECONDARY NUMBER (%)	TOTAL NUMBER (%)
Diabetes Mellitus without mention of complications (250.0)	894 (15.3)	39,783 (83.7)	40,677 (76.2)
Diabetes with Ketoacidosis (250.1)	1,555 (26.6)	348 (0.7)	1,903 (3.6)
Diabetes with Hyperosmolarity (250.2)	221 (3.8)	86 (0.2)	307 (0.6)
Diabetes with other Coma (250.3)	80 (1.4)	29 (0.1)	109 (0.2)
Diabetes with Renal Manifestations (250.4)	190 (3.3)	1,780 (3.7)	1,970 (3.7)
Diabetes with Ophthalmic Manifestations (250.5)	17 (0.3)	895 (1.9)	912 (1.7)
Diabetes with Neurological Manifestations (250.6)	638 (10.9)	2,626 (5.5)	3,264 (6.1)
Diabetes with Peripheral Circulatory Disorders (250.7)	807 (13.8)	748 (1.6)	1,555 (2.9)
Diabetes with Other Specified Manifestations (250.8)	1,284 (21.9)	956 (2.0)	2,240 (4.2)
Diabetes with Unspecified Complication (250.9)	64 (2.8)	307 (0.7)	471 (0.9)
<b>Total</b>	<b>5,850 (10.9)</b>	<b>47,558 (89.1)</b>	<b>53,408 (100.0)</b>

Source: Delaware Bureau of Health Planning & Resources Management, Delaware Health Statistics Center, Hospital Discharge Data.

Table 4.

Incident End Stage Renal Disease Cases by Primary Cause Delaware 1995-1999			
YEAR	DIABETES	INCIDENT ESRD TOTAL	PERCENT DIABETES
1995	74	213	35%
1996	82	206	40%
1997	70	185	38%
1998	95	238	40%
1999	119	250	48%
<b>Total</b>	<b>440</b>	<b>1092</b>	<b>40%</b>

Source: End Stage Renal Disease (ESRD) Network 4.





hospital discharge in every eight involved a person with diabetes. Almost 100 Delawareans each year develop kidney disease serious enough to require dialysis due to diabetes, and the number appears to be increasing over time. In 1998, about 10,000 Delawareans experienced disability because of diabetes. That same year, Delawareans with diabetes made an estimated 330,000 physician visits because of the disease.



## PLAN SO WOMEN WILL HAVE HEALTHY PREGNANCIES AND BABIES

### Diabetes in Pregnancy

Between 1995 and 1999, more than 2,500 Delaware women per year had diabetes during pregnancy. About 300 infants each year were born to mothers who had diabetes as a medical risk factor. Diabetes affected a minority of pregnancies overall, amounting to fewer than one out of every 30 live births, but there is evidence of increasing risk to infants because of increasing incidence of Type 2 Diabetes in younger women.

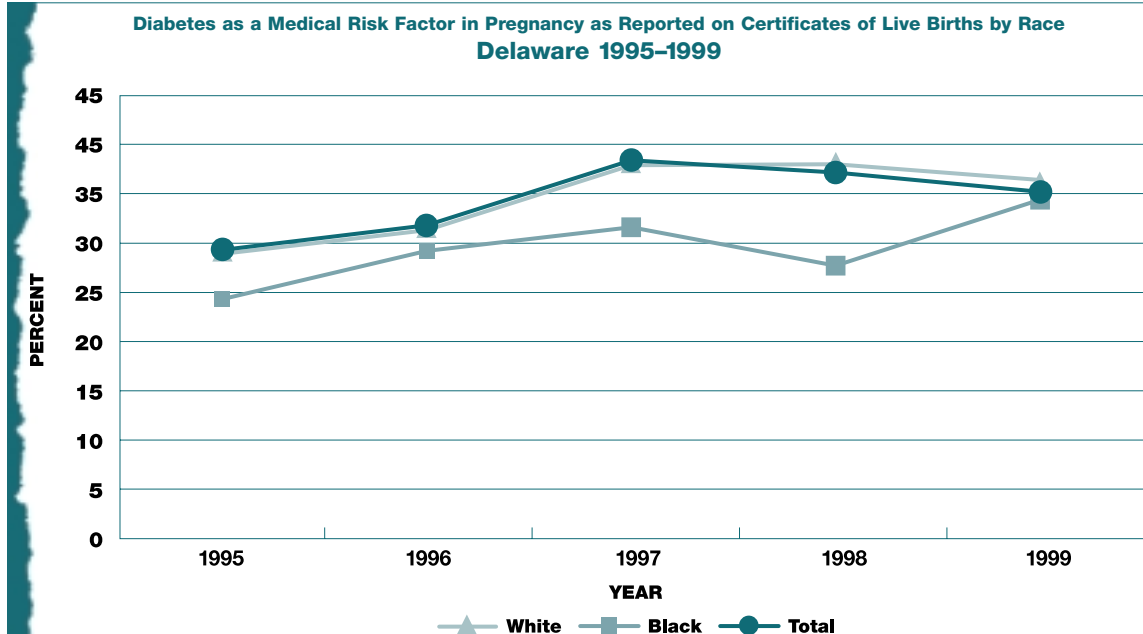
**Table 5.**

**Estimated Numbers of Women 18 Years and Older Who Reported Ever Having Been Diagnosed with Diabetes But Only During Pregnancy Delaware 1995-1999**

TYPE OF ESTIMATE	ESTIMATED NO. DIAGNOSED DURING PREGNANCY	DIABETES PREVALENCE RATE <sup>1</sup>	NO. OF WOMEN AGES 18 AND OLDER
Average	2,629	17.7	148,537
Minimum	1,248	8.4	148,182
Maximum	4,009	26.9	148,892

Source: Delaware Behavioral Risk Factors Surveillance Survey (BRFSS) 1995-1999.  
<sup>1</sup> Prevalence rate/1,000 population.

**Figure 1.**



Source: Delaware Health Statistics Center, certificates of live births 1995-1999.



## PLAN SO PEOPLE CAN GET GOOD TREATMENT FOR THEIR DIABETES

### Treatment

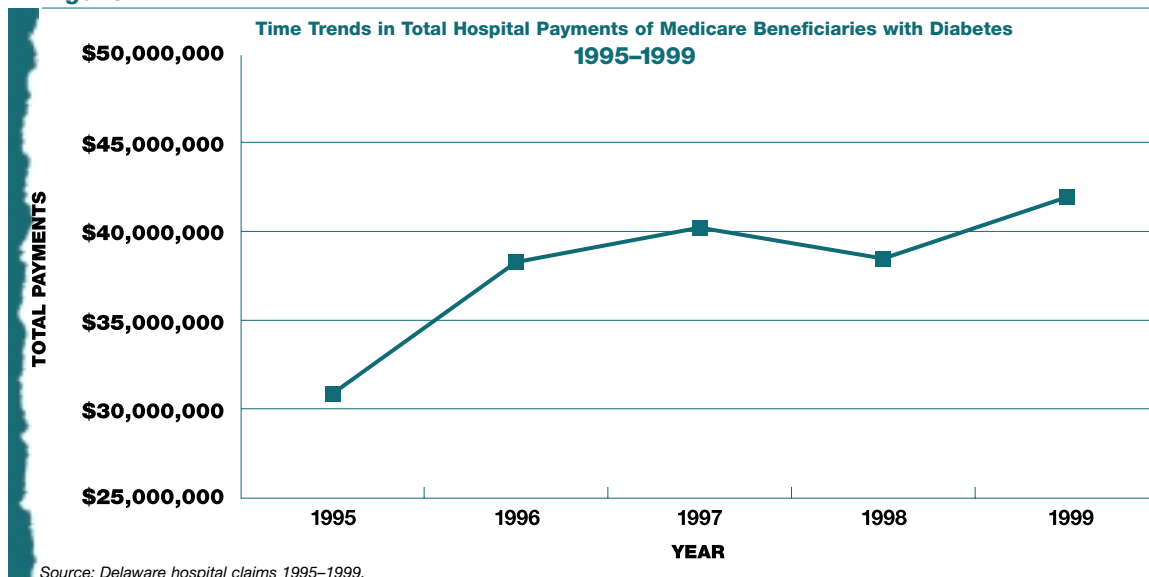
Many Delawareans did not get widely recommended tests and treatments for diabetes. For example, one-quarter of Medicare beneficiaries aged 65-74 with diabetes did not receive either blood tests for glycosylated hemoglobin or dilated eye examinations in 1998-99, and 40 percent did not have tests for hyperlipidemia, even though Medicare covered all these tests in persons with diabetes. One-third of Delawareans with diabetes over age 18 did not have foot examinations in 1997-98. Not getting these tests increases the risk of serious complications of diabetes, e.g., blindness, heart attacks, and foot and leg amputations. Up to half of all Medicare beneficiaries with diabetes had not received a pneumonia shot, and a similar proportion did not receive annual influenza injections, increasing the risk of death from pneumonia.

**Table 6.**

Proportion of Delaware Medicare Beneficiaries Age 65-74 with Diabetes Having Specified Medical Procedures Delaware 1998-1999						
INDICATOR	GENDER NUMBER (%)		RACE* NUMBER (%)			TOTAL
	MALE	FEMALE	CAUCASIAN	AFRICAN AMERICAN	OTHER	
Hemoglobin A1c in past year	1431 (70.4%)	1644 (73.3%)	2402 (72.9%)	585 (69.2%)	74 (65.5%)	3075 (71.9%)
Lipid screen in past 2 years	1183 (58.2%)	1348 (60.1%)	2062 (62.5%)	411 (48.6%)	50 (44.2%)	2531 (59.2%)
Eye examination in past 2 years	1520 (74.8%)	1808 (80.6%)	2586 (78.4%)	644 (76.2%)	81 (71.7%)	3328 (77.9%)
Total Beneficiaries	2032	2242	3297	845	113	4274

\*With less than 0.4% race unknown.  
Source: HCFA Medicare claims data 1998-1999.

**Figure 2.**



# PLAN SO WE CAN REDUCE HEALTH COSTS AND THE FINANCIAL BURDEN OF DIABETES



## Economic Costs

Caring for persons with diabetes is expensive. In the late 1990s, the total economic burden due to diabetes in Delaware was immense. Medicare expenditures for hospital care of beneficiaries with diabetes exceeded \$40 million in Delaware, with the amount having increased by one-third in five years. Payments to Delaware hospitals for care of persons with diabetes were more than \$100 million per year between 1995 and 1999. The average payment per hospitalization for patients with diabetes was between \$2,000 and \$3,000 greater than the average payment for patients without the disease. The annual total economic cost of diabetes in Delaware in 1997 was estimated to be almost \$300 million.

**Table 7.**

**Total Hospital Payments for Medicare Fee for Service Beneficiaries over Age 65 With and Without a Diagnosis of Diabetes 1995-1999**

	WITH DIABETES DIAGNOSIS		WITHOUT DIABETES DIAGNOSIS	
	DISCHARGES	PAYMENTS	DISCHARGES	PAYMENTS
1995	5111	\$30,895,018.57	20,207	\$131,277,260.55
1996	5541	\$38,258,649.13	19,011	\$139,760,685.36
1997	5775	\$40,236,979.23	19,139	\$142,418,806.98
1998	5845	\$38,497,781.66	19,831	\$141,104,416.17
1999	6270	\$41,951,131.04	21,616	\$151,160,243.16

Source: Delaware hospital claims 1995-1999.



*"It's important for people with diabetes to not feel embarrassed. I even check my blood sugar in front of my peers. Kids with diabetes should know about Starbright's Diabetes CD-ROM. It's an educational and fun game that helps me stay in control of my diabetes." — Antonio DeJesus with his sister Gabrielle and mother Jennifer DeJesus, Newark*



## PLAN SO WE STOP PEOPLE DYING FROM DIABETES

### Diabetes Mortality

Delaware's high rate of diabetes and underutilization of services can be expected to result in complications and death from the disease. It is not surprising that Delaware had the fourth-highest death rate from diabetes (as the underlying cause of death) of all states in 1998. Death rates from diabetes were 30 times higher among Delawareans over age 65 than among younger people. African American death rates were two to three times higher than Caucasian rates.

Figure 3.

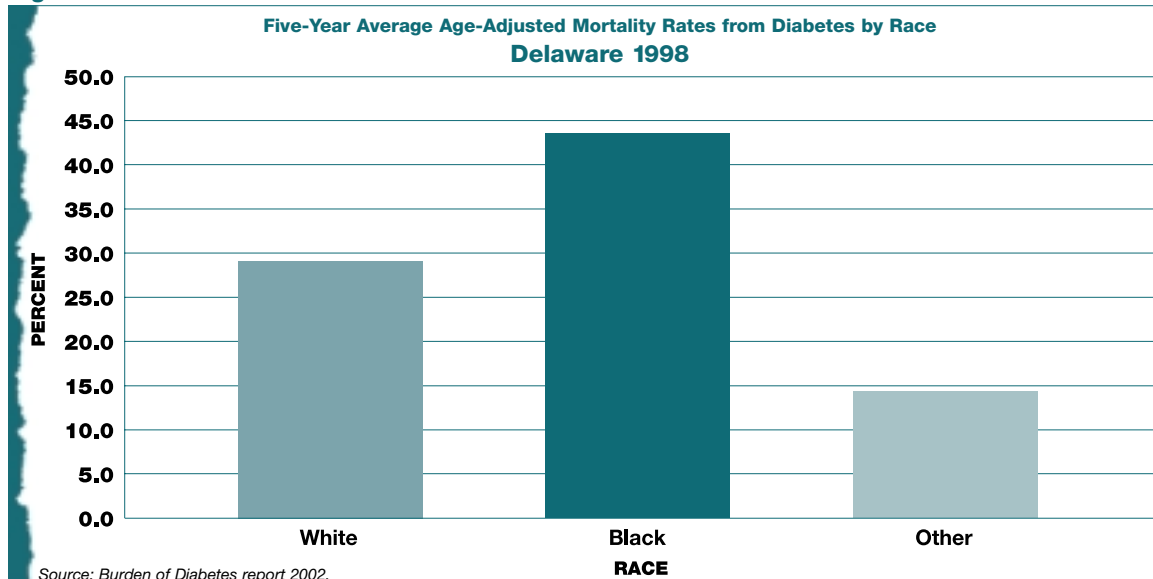


Table 8.

**Number and Percent of Deaths with Diabetes Listed as the Underlying Cause by Age and Gender  
Delaware 1998**

AGE	MALE NUMBER (%)	FEMALE NUMBER (%)	TOTAL NUMBER (%)
Under 45	3 (2.8%)	1 (0.8%)	4 (1.7%)
45-54	4 (3.7%)	7 (5.6%)	11 (4.7%)
55-64	18 (16.7%)	12 (9.6%)	30 (12.9%)
65-74	23 (21.3%)	33 (26.4%)	56 (24.0%)
75 +	60 (55.6%)	72 (57.6%)	132 (56.7%)
Total	108	125	233

Source: Burden of Diabetes report 2002.

# PLAN SO WE INCLUDE EVERYONE IN DELAWARE WHO HAS DIABETES



## Diabetes in Special Populations

This report examines diabetes in populations of special interest: recipients of public assistance, nursing home residents, school children and prisoners. For example, in 2001, diabetes affected:

- One-fifth of people over age 55 in one of the two Medicaid Managed Care plans serving the state;
- One-quarter of nursing home residents with Medicaid coverage;
- Two out of every thousand school children and
- One-sixth of all prisoners aged 60 and older.

**Table 9.**

Proportion of Diabetes in Delaware Prisons in 2001 by Age			
AGE	NO. OF PRISONERS	NO. OF DIABETES	RATE (%)
Under 25	1526	14	0.9
26-40	2744	40	1.5
41-60	1258	40	3.2
Above 60	71	12	16.9
Total	5599	116	2.1

Source: Kathleen English, Deputy Bureau Chief, Bureau of Management Services, Delaware Department of Corrections.

**Table 10.**

Chronic Illness in Delaware Children Enrolled in Schools 2001				
ILLNESS:	TOTAL STUDENTS SURVEYED	DIABETES TYPE I NUMBER (%)	DIABETES TYPE II NUMBER (%)	OBESITY NUMBER (%)
<b>COUNTY</b>				
Kent	17618	35 (0.20)	9 (0.05)	34 (0.19)
New Castle	52681	124 (0.24)	12 (0.02)	190 (0.36)
Sussex	11946	21 (0.18)	3 (0.03)	206 (1.72)
Total	82245	180 (0.22)	24 (0.03)	430 (0.52)

Source: Chronic Disease School Survey, November, 2001  
Survey conducted in conjunction with Delaware State Department of Education, School Nurses and Quality Insights of Delaware.



## PLAN SO WE LOWER THE NUMBER OF PEOPLE WHO DEVELOP DIABETES

### Risk Factors for Diabetes In Delaware: A Window on the Future

Finally, the report describes the risk factors that increase the occurrence of diabetes or its complications. Obesity and lack of exercise are associated with increased incidence of diabetes, and may partially cause it. In Delaware, obesity has increased by 5 percent between 1990 and 2000, exceeding national rates of increase in the same time span. Smoking, hypertension and high blood lipid levels make diabetes worse once it is present. Between 1990-2000 in Delaware, one-quarter of the population over age 18 smoked cigarettes, half of those over age 65 had high blood pressure and almost one-third of adults said they had high cholesterol levels.

**Table 11.**

Estimated Proportion and Number of Delawareans Over the age of 18 Who are at risk for health problems related to being overweight, by Gender and Race.					
	1995	1996	1997	1998	1999
	N (%)	N (%)	N (%)	N (%)	N (%)
	99% CI	99% CI	99% CI	99% CI	99% CI
<b>GENDER</b>					
Male	254 (29.7) (28.1–31.3)	267 (32.5) (28.8–36.2)	340 (33.6) (30.3–36.9)	353 (34.2) (29.9–38.5)	380 (32.2) (28.4–35.9)
Female	395 (31.5) (28.5–32.7)	381 (31.1) (28.1–34.1)	490 (31.4) (28.7–34.1)	487 (31.5) (28.4–34.6)	491 (31.8) (28.4–35.1)
<b>RACE</b>					
Caucasian	495 (29.3) (26.9–31.7)	492 (29.3) (26.8–31.8)	623 (31.4) (29.0–33.8)	631 (31.5) (28.6–34.5)	665 (30.6) (27.8–33.3)
Non-Caucasian	154 (36.0) (30.4–41.6)	156 (41.1) (31.9–50.3)	207 (36.8) (31.9–41.7)	209 (37.9) (32.9–42.9)	206 (38.6) (33.5–43.7)
<b>Total (%)</b>	<b>649 (30.6)</b>	<b>648 (31.8)</b>	<b>830 (32.5)</b>	<b>840 (32.8)</b>	<b>871 (32.0)</b>
<b>99% CI</b>	<b>(28.3–32.9)</b>	<b>(29.5–34.1)</b>	<b>(30.3–34.7)</b>	<b>(30.3–35.3)</b>	<b>(29.4–34.5)</b>

Data Source: Delaware Behavioral Risk Factor Surveillance Survey 1995–1999.  
 BMI ≥ 27.8 for men and BMI ≥ 27.3 for women.  
 % = Percentages, CI = 99% Confidence Interval.

**Table 12.**

Estimated Proportion of Delawareans Over Age 18 Who Have Ever Been Told by a Doctor, Nurse, or Other Health Professional That They Have High Blood Pressure by Gender and Race.					
	1995	1996	1997	1998	1999
	N (%)	N (%)	N (%)	N (%)	N (%)
	99% CI	99% CI	99% CI	99% CI	99% CI
<b>GENDER</b>					
Male	169 (19.2) (16.3–22.1)	No Data*	260 (24.3) (21.2–27.4)	No Data*	285 (26.1) (22.5–29.6)
Female	310 (23.2) (20.8–25.6)		454 (26.6) (24.1–29.1)		365 (25.0) (21.6–28.3)
<b>RACE</b>					
Caucasian	384 (21.1) (19.1–23.3)		560 (24.9) (22.7–27.1)		519 (26.0) (23.1–28.6)
Non-Caucasian	95 (22.0) (17.3–26.7)		154 (27.8) (23.3–32.3)		131 (24.7) (20.3–29.1)
<b>Total (%)</b>	<b>479 (21.3)</b>		<b>714 (25.5)</b>		<b>650 (25.5)</b>
<b>99% CI</b>	<b>(19.4–23.2)</b>		<b>(23.5–27.5)</b>		<b>(23.1– 27.8)</b>

Data Source: Delaware Behavioral Risk Factor Surveillance Survey 1995–1999.  
 % = Percentages, CI = 99% Confidence Interval.  
 \*No data for Delaware—1996, 1998.

## **PLAN FOR TODAY, TOMORROW, AND THE FUTURE**

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### ***Overview of Our Call to Action***

*The Burden of Diabetes in Delaware* paints an alarming picture of a deadly chronic disease at epidemic levels in our state. The disease disproportionately affects some of the most vulnerable Delawareans, including racial minorities, older adults, the poor, and the incarcerated. The cost of care is expensive and increasing. Because increasing numbers of Delawareans are overweight and fail to get enough exercise, these numbers will continue to rise. These findings are a call to action to prevent diabetes through healthier living, and provide treatment to those who have the disease.



## **PLAN FOR ACTION**

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### ***Plan for Effective Programs – 5 Steps to Plan for Effective Program Planning and Evaluation***

1. When developing programs and community interventions, always plan for evaluation of outcomes.
2. Always monitor and evaluate your diabetes control planned activities, including both your impact and process objectives.
3. Develop community interventions with measurable objectives that complement and support our national and state objectives, listed on page 4. These include designing programs throughout Delaware that will increase eye and foot exams, flu and pneumonia shots, and increasing HgA1C testing for people with diabetes.
4. Develop programs with measurable objectives that will successfully help reduce health disparities for high-risk populations.
5. Develop community awareness and promotion of healthy lifestyles by increasing physical activity, supporting healthy nutrition, smoking cessation and weight and blood-pressure control efforts that are measurable. These will help prevent both complications of diabetes and the development of Type 2 Diabetes.

***For help with how to develop and evaluate your program, call the Division of Public Health's Diabetes Control Program at 302-744-4544.***



## WHY PLAN FOR FUNDING?

The overall economic impact of this disease is difficult to calculate as it is estimated that 15,000 Delawareans have diabetes and do not know they have it. Often individuals are not diagnosed until complications develop. However, we do know that the actual cost to our state and the nation is significant. One out of five Medicaid recipients over age 55 has diabetes. On a federal level, diabetes contributes to almost 25 percent of all Medicare costs. To reduce these costs it is vital to make sure that all of our older adults in Delaware have all needs met for managing their diabetes.

There has been an increase in younger Delawareans going out on disability and over \$100 million is spent annually on hospital care for persons with diabetes. The economic outcomes at the point of diabetes complication development are drastic. This disease contributes to almost 50 percent of all end-stage renal disease and amputation cases in Delaware. Diabetes is the leading cause of end-stage renal disease, adult blindness, lower-limb amputations, heart disease, and stroke.

Trends outlined in *The Burden of Diabetes in Delaware* report show the rapidly increasing cost from diabetes. We must have full commitment from the state and federal government, private organizations, worksites, the health systems and most important, those people who have diabetes.



*“At this time in my life I’ve changed my eating habits a great deal. And I’ve found that as long as everything is going along nicely my sugar stays around 120 -134, but if something upsets me it will go up to 150. Stress definitely plays a role.” — Juanita Robinson, Wilmington*



## I. COMMUNICATION/COORDINATION

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### *Why plan for good communication*

Effective communication can help improve access to resources for diabetes education, intervention, and prevention. Linking partners will help provide effective services to the communities they serve.

Delawareans are not aware of the devastating effects of diabetes on the health of the state's population, its complications and the costliness of the disease. While different public and private health care communities have many initiatives in place, there is little cross-communication and coordination among stakeholder organizations. Furthermore, the emphasis of care and education is on treatment rather than wellness or prevention. Additionally, information that is presently available is not readily accessible by some populations due to economics, language, cultural or geographical barriers.

### *The Goal:*

- Increase the level of awareness of all Delawareans about the importance of diabetes prevention and lifetime self-management for those who have the disease.
- Improve the communication and coordination efforts within the health care community (public, private, non-profit) in Delaware so they can better reach at-risk populations through education and increased awareness. This will be achieved largely through the development and implementation of a comprehensive marketing and educational awareness plan.

These two approaches combined would reach all major audiences, including legislators, health care providers, schools and community organizations and, most importantly, the general public and at-risk populations.

### *Outcome Measures: By 2010*

- Establish centralized diabetes communication center
- Establish diabetes resource centers in every Delaware library
- Reduce diabetes prevalence by 10 percent
- Reduce diabetes mortality by 10 percent

## PLAN FOR GOOD COMMUNICATION/COORDINATION

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### *Action Steps:*

1. Provide for one program education coordinator through the Delaware Diabetes Coalition to develop uniform coordination and communication of diabetes programs regarding education, early detection, and prevention of diabetes. The focus of this activity will be to reduce redundancy of information and ensure that barriers to communication and educational awareness among at-risk populations are reduced.  
**BY 2004**
2. Develop and activate four educational awareness campaigns. **BY 2004**
3. Link 12 of the 35 Delaware libraries with diabetes educational materials, both printed and electronic, to include educational materials that are linguistically, culturally and educationally appropriate for all ages. **BY 2004**





4. Develop a central communication point via website to help promote diabetes activities to both health professionals and communities. Include key linkages for diabetes resources. **BY 2006**
5. Increase the resources available on diabetes education and management in Kent and Sussex counties through appropriate partnerships. **BY 2005**
6. Create one core market-based prevention plan in collaboration with health care providers, schools and community-based programs and disseminate information about diabetes to all Delawareans, including diverse, at-risk and geographically isolated populations. The marketing and educational awareness plan will target the broad community through schools, faith communities, hospitals, senior centers, health centers, civic associations, service clubs, managed health care organizations, and Medicare. **BY 2006**
7. Seek and secure federal, state, local, and community funding for action steps 1 through 6. **ONGOING**

#### ***Resources for Action:***

- American Diabetes Association  
Website availability for program communication  
888-342-2383 or [www.diabetes.org](http://www.diabetes.org)
- Delaware Diabetes Coalition  
Statewide coalition of diabetes health advocates  
302-430-5088
- Delaware Division of Public Health / Diabetes Control Program  
Website / Communication Center  
302-744-4544 or [www.deph.org](http://www.deph.org)

#### ***Partners for Action***

- American Diabetes Association
- Coalition for a Healthier Delaware Diabetes Task Force
- DaimlerChrysler
- Delaware Diabetes Coalition
- Delaware Division of Public Health / Diabetes Control Program
- Delaware Health and Social Services
- Department of Education
- Libraries
- Media

## PLAN WITH THREE TYPES OF DIABETES IN MIND

### **Type 1 Diabetes**

Type 1 Diabetes develops most often in children and young adults, but can appear at any age. Type 1 Diabetes is known as an autoimmune disease. This happens when the body's system that fights infection attacks the insulin-producing beta cells in the pancreas and destroys them. The pancreas then produces no or very little insulin. Someone with Type 1 Diabetes has to take insulin daily to live.

### **Type 2 Diabetes**

Type 2 Diabetes is the most common form of diabetes, usually developing in adults age 40 or older. About 80 percent of people with this type of diabetes are overweight. With Type 2 Diabetes, the pancreas is usually producing some insulin but the body can not use it effectively. After several years, insulin production decreases and glucose builds up in the blood and the body cannot make efficient use of the insulin.

### **Gestational Diabetes**

Gestational Diabetes develops only during pregnancy. Like Type 2 Diabetes, it occurs more often in African Americans, Native Americans, Hispanic Americans and people with a family history of diabetes. This type of diabetes increases the risk for a woman to develop Type 2 Diabetes later in life.



*"I was diagnosed with pre-diabetes in 1998. I did not want to become a diabetic, so I changed my diet and started an exercise program. First I started walking around my neighborhood and then the school track. Now I'm a member at an all ladies gym. Exercise has made all the difference. I feel so much better." — Teresa Murray, Wilmington*



## II. DIABETES AND YOUTH

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### *Why plan for our youth?*

Type 1 Diabetes usually develops at an early age. Good blood sugar control is important for the child with diabetes. Diabetes management for our young Delawareans is difficult due to all of their every day challenges while growing up. Providing updated information on an ongoing basis for those with Type 1 Diabetes is important. Children with diabetes spend a lot of time in our schools or at after-school activities. School nurses play an important role as diabetes team members, therefore school nurses should be kept informed of changes in the child's' diabetic regimen.

Today we see a rapid increase of Type 2 Diabetes in youth. It is important that we develop programs and community interventions to focus on early development years, encouraging our children to be active and to learn healthy eating habits. National reports show that close to 20 percent of our youth are at risk for developing Type 2 Diabetes. It is important to keep our children healthy, so we can prevent diabetes and many other chronic diseases.

Even though we currently provide training on diabetes for our school nurses, and provide weekend camp retreats for our youth with diabetes and their families, we need more. The objectives proposed will begin the process of securing a better life for children with diabetes. They will also help to prevent other young Delawareans from developing Type 2 Diabetes.

A number of programs exist in Delaware to address Type 1 Diabetes in youth. The Juvenile Diabetes Research Foundation provides funding for research for Type 1 Diabetes. Groups such as the American Diabetes Association, the Division of Public Health's Diabetes Control Program, and family volunteer and support groups provide educational materials targeting affected children and their families. Specific programs like the Sugar Free Kids Camp, Bag of Hope, and the Wisdom Kits are available. Also, the Division of Public Health's Diabetes Control Program provides an annual diabetes update for school nurses and staff.

Access to health care for children with diabetes is often an issue. Eligibility for treatment of diabetes is inconsistently applied and can sometimes lead to a delay in treatment and cause children to be sicker when they finally receive treatment.

Type 2 Diabetes in children is on the rise, largely because of lifestyle changes that are contributing to increased childhood obesity. At this time there are presently no statewide education programs in place to inform parents and children of prevention strategies. However, the Delaware Health Care Commission and Division of Public Health's Diabetes Control Program are working on developing awareness through the media on the prevention of Type 2 Diabetes in our youth.

### ***The Goal:***

- Incorporate diabetes prevention and self-management as part of the Healthy Communities Program of the Governor's Livable Delaware program.
- Support early diagnosis and treatment of diabetes in children by increasing the percentage of medical eligible children who are diagnosed through physicians.
- Develop educational awareness programs that foster healthy lifestyles and encourage behavioral changes in youth.



- Prevent Type 2 Diabetes in youth by increasing awareness and education of young people and their parents about the dangers of diabetes and how healthy food choices and physical activity can help eliminate the disease.



### **Outcome Measures: BY 2010**

- Increase numbers of youth who incorporate “healthy lifestyle choices” into their day-to-day life.
- Increase the number of healthy Delaware communities.
- Increase awareness among school nurses and staff of symptoms and treatment of Type 2 Diabetes.
- Increase knowledge among school nurses and staff about management of Type 1 Diabetes.
- Increase utilization of Medicaid to fund diabetes treatment in youth for both Type 1 and Type 2 Diabetes.
- Decrease prevalence of Type 2 Diabetes in youth

## **PLAN FOR KEEPING OUR YOUTH HEALTHY**

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### **Action Steps:**

1. Activate programs for the awareness of Type 2 Diabetes and its prevention in 50 percent of all Delaware schools, wellness centers and colleges. **BY 2004**
2. Activate programs in 50 percent of all Delaware schools on Type 1 and Type 2 Diabetes, management, responsibilities and general knowledge of the disease. Provide yearly updates to school nurses, cafeteria staff, bus drivers, teachers, coaches and administration. **BY 2003**
3. Reduce barriers to receiving information by offering educational awareness programs in community locations that are accessible to youth and their families. Provide and promote information at 45 sites that serve youth in the community, including Boys and Girls clubs, churches, the YMCA/YWCA, entertainment venues, childcare centers, schools, community centers and events. **BY 2005**
4. Encourage and support healthy lunch choices in school cafeterias and vending machines. Pursue long-term reform of existing practices through changes in school policy by requiring healthy dietary standards. Establish one pilot school in each county for developing alternative food choices. **BY 2006**
5. Promote physical activity in our schools through recess and athletic programs. Pursue policy changes that increase physical education as part of the school curriculum for all grades. **BY 2007**
6. Create an Advisory Council and Youth Task Force to coordinate educational information and a peer education program in schools that focuses on diabetes awareness, education, prevention and healthy lifestyles. **BY 2006**
7. Develop three media campaigns on prevention of Type 2 Diabetes emphasizing reducing obesity among youth, and encouraging proper nutrition and exercise. **BY 2003**
8. Establish uniform Medicaid coverage under a disabled children’s program for both Type 1 and Type 2, with diagnosis being a single qualifier so that any youth with diabetes goes into the system automatically. **BY 2003**





9. Seek and secure federal, state, local, and community funding for action steps 1 through 8. **ONGOING**

### ***Resources for Action:***

- Alfred I. DuPont Hospital For Children  
Juvenile endocrinologist, health specialist for children with diabetes  
302-651-5965 or [www.nemours.org/no/de/aidhc/](http://www.nemours.org/no/de/aidhc/)
- American Diabetes Association  
Wisdom Kit for newly diagnosed, advocacy, and educational materials  
888-342-2383 or [www.diabetes.org](http://www.diabetes.org)
- Centers for Disease Control and Prevention  
U.S. Department of Health and Human Services  
A national youth campaign designed for diabetes and other chronic disease prevention. Promoting healthy lifestyles and displace unhealthy, risky behaviors among our youth.  
[www.cdc.gov/youthcampaign](http://www.cdc.gov/youthcampaign) or [www.state.de.us/dhss/dss/medicaid.html](http://www.state.de.us/dhss/dss/medicaid.html)  
Kids—[www.VERBnow.com](http://www.VERBnow.com)  
Parents—[www.VERBparents.com](http://www.VERBparents.com)
- Delaware Division of Public Health / Diabetes Control Program  
Annual School Nurse and Staff Update  
302-744-4544 or [www.deph.org](http://www.deph.org)
- Juvenile Diabetes Research Foundation  
Bag of Hope program for newly diagnosed and educational materials  
302-282-8696 or [www.jdf.org](http://www.jdf.org)
- Sugar Free Kids / American Diabetes Association  
Support Groups and Weekend Camp Retreat  
888-342-2383 or [www.diabetes.org](http://www.diabetes.org)
- University of Delaware  
Camp for children with diabetes  
302-831-8380 or [www.udel.edu/](http://www.udel.edu/)

### ***Partners for Action***

- American Diabetes Association
- Boys and Girls Clubs
- Childcare Centers
- Church Youth Groups
- Coordinating Council for Children with Disabilities
- Delaware Coalition to Promote Physical Activity and Healthy Nutrition
- Delaware Diabetes Coalition
- Delaware's Division of Public Health / Diabetes Control Program
- Department of Education
- Delaware Health and Social Services
- Emergency Medical Services for Children
- Food Services
- Food Vending
- Head Start

- Hospitals
- Juvenile Diabetes Research Foundation
- Kids Count in Delaware
- Legislature
- Media
- Medicaid
- National Diabetes Education Program
- Nutritionists
- Parents
- Produce for Better Health
- PTAs
- School Nurses
- University of Delaware Cooperative Extension
- Wellness Centers
- YMCA / YWCA
- Youth Detention Centers



*“Diabetes runs in my family. Both of my grandmothers had it and my father had it. In 1987 I was diagnosed with Type 2 Diabetes. I tried all different kinds of medicine, which worked, but not as well as the the doctor wanted them to work. Then, as soon as last year they came out with a new insulin...a 24 hour insulin. Now I take four medications a day as well as insulin at bedtime and it seems to be working well.” — **Alice Giles with granddaughter Katelyn, New Castle***





### III. DIABETES AND THE WORKPLACE

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#### **WHY A PLAN OF ACTION FOR THE WORKPLACE?**

- Most Delawareans spend over a third of their waking hours at the worksite. Employers have a unique opportunity to provide their employees with diabetes education and support. Organizations of all sizes can help their employees. The consequences of diabetes and its complications impact business in many ways.
- **Good Blood Sugar Control: A Critical Goal**  
Any company-developed diabetes intervention should promote blood sugar control among its employees. Keeping blood sugar levels normal will be a major factor in improving your employees' quality of life and reducing your company's human and economic costs from diabetes and its complications.
- **How Is Your Company Affected by Diabetes?**
  - Lower quality of life
  - Absenteeism
  - Increased risk of premature deaths
  - Loss of productivity
  - Direct health-care expenditures
  - Indirect health-care related expenditures

***For a copy of "Making a Difference – The Business Community Takes on Diabetes," contact the National Diabetes Education Program at CDC 770-488-5037 or NIH 301-496-3583.***

Several larger employers offer cafeteria-style benefits programs and a selection of plans that offer strategies to manage diabetes. These plans typically include programs related to diabetes management. If such plans are excluded, employers could make a greater effort to negotiate with insurance companies to get plans that promote wellness programs.

While some employer coordination efforts exist locally, many employers are not part of a coordinated effort to share the best ideas. Smaller employers are often not able to provide health insurance. There are ways to implement programs in the workplace that allow people with the disease to improve how they manage their own care. Additionally, the workplace can facilitate the prevention of diabetes to at-risk populations through promotion of healthy lifestyle choices and workplace practices involving healthy nutrition, physical exercise and weight management. Business stands to benefit from creating a wellness environment because of the savings from reduced lost work time due to sickness and increased productivity.

#### ***The Goal:***

- Delaware employers will be educated about the importance of diabetes management and prevention in the workplace.
- Employers will support diabetes management initiatives in the workplace.

#### ***Outcome Measures: By 2010***

- Increased number of diabetes education programs offered at the worksite
- Increased number of health plans that provide coverage for diabetes management and prevention
- Increased identification of new cases of diabetes



## **PLAN FOR KEEPING OUR EMPLOYEES HEALTHY**

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### **Action Steps:**

1. Identify four pacesetter companies, (one in Sussex County, one in Kent County, and two in New Castle County) to incorporate diabetes management practices in the workplace. **BY 2004**
2. Develop a public and private sector partnership that encourages the sharing of information, identification and implementation of best practices, and recognition of success. (Develop a website as an electronic educational clearinghouse for resources.) **BY 2005**
3. Identify a certified diabetes educator to work with employers in the development of their diabetes management and prevention plans and to facilitate the work of the private-public partnership. **BY 2005**
4. Educate workplace purchasers of insurance, targeting 50 percent of Delaware companies that employ over 250 Delawareans, on the benefits of healthy employees with diabetes and cost savings, in which coverage will include early - detection services for free or reduced cost. Encourage proactive negotiation with insurance companies to obtain more comprehensive packages and increased coverage relating to diabetes prevention and management. **BY 2006**
5. Activate one media campaign to promote benefits of the importance of keeping employees healthy. **BY 2003**
6. Develop one core program to make the workplace diabetes-friendly. Secure support groups, self-testing areas, readily available snacks, and trips to the restroom as deemed necessary for the employee with diabetes. Develop healthy food choices for vending machines, cafeterias, meetings, work programs and other locations where food is served. Promote the program at 35 worksites statewide. **BY 2004**
7. Develop one core program for Delaware employers that will provide a focus on prevention, promote awareness, and early detection. Take action through the use of payroll stuffers, business letters, websites, and lunch learning sessions, seminars, and direct education. Promote the program at 20 worksites statewide. **BY 2004**
8. At places of employment with on-site medical facilities, incorporate the use of the Medical Society of Delaware – Practice Guidelines for Diabetes Care and/or ADA’s Standards of Care at 35 percent of those worksites. **BY 2004**
9. Promote employee incentives for increased physical activity and develop opportunities at work for such activities as walking, yoga, dance, creating walking paths and exercise areas and other ways to increase physical activity during lunch and breaks at 50 percent of the worksites in Delaware that employ over 250 people. **BY 2006**
10. Develop and distribute an employer/employee resource guide to 50 percent of all Delaware businesses that employ 100 or more Delawareans. **BY 2005**
11. Seek and secure federal, state, local, community and corporate funding for action steps 1 through 10. **ONGOING**





### ***Resources for Action:***

- American Diabetes Association  
Materials for employee education programs  
888-342-2383
- DaimlerChrysler / United Auto Workers  
Diabetes task force and health initiative with a workplace focus  
410-885-2021
- Delaware Diabetes Coalition  
Employer / Diabetes Resource Guide  
302-430-5088
- Delaware Division of Public Health / Diabetes Control Program  
Employer-based and employee-based programs  
302-744-4544
- Delaware State Chamber of Commerce  
Delaware's oldest and largest business advocacy organization  
800-292-9507
- National Diabetes Education Program  
Centers for Disease Control and Prevention / Division of Diabetes Translation  
Making a Difference - The Business Community Takes on Diabetes  
770-488-5037

### ***Partners For Action***

- American Diabetes Association
- American Heart Association
- Big and Small Business
- Chambers of Commerce
- Colleges
- DaimlerChrysler Health Initiative
- Delaware Coalition to Promote Physical Activity and Healthy Nutrition
- Delaware Department of Labor
- Delaware Diabetes Coalition
- Delaware Division of Public Health / Diabetes Control Program
- Food Services
- Food Vending
- Hospitals
- Human Resource Departments
- Legislature
- Media
- National Diabetes Education Program
- Produce for Better Health
- Providers

## IV. DIABETES AND OLDER ADULTS

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### *Why plan for older adults?*

Over 90 percent of diabetes is Type 2 and most cases of Type 2 Diabetes occur in people over age 50. In 1998, almost 94 percent of all deaths attributed to diabetes occurred in Delawareans over age 55. Current research suggests that the prevalence of diabetes among older adults is expected to increase, paralleling trends that project a growth in the aging population during the next 20 years.

Diabetes is serious and its management often poses a challenge for older adults due to multiple factors, including the high cost of medications, self-management supplies (meters, strips, etc.) and other related medical needs. For some, limited public transportation in both rural and urban areas is often cited as an obstacle that significantly reduces access to medical care and services.

For adults age 65 and over with diabetes, Medicare provides substantial medical benefits including self-management supplies and education. Some older adults, however, are unaware of these and related Medicare benefits. Currently, almost 25 percent of Medicare funds are utilized for managing diabetes and treating complications. For those adults (ages 50-64) who are not yet eligible for Medicare, the costs associated with diabetes management, coupled with inadequate health insurance coverage and a lack of pharmacy benefits, impact and often impede access to optimal services and care for this at-risk population.

In view of the trends and barriers that complicate the management and control of diabetes among older adults, diabetes education and prevention efforts will continue to play a key role in reducing the burden of diabetes among vulnerable and at-risk populations and in eliminating health disparities. To prevent and better manage diabetes among older Delawareans, it is vital that we collaborate to develop and implement effective strategies that address the prevention and self-management needs of this growing population. To support this effort, existing resources and programs should be expanded and new services provided.

### *The Goal:*

- Enhance and provide effective programs and services that target adults age 50 and older.
- Focus on the prevention, management, and control of diabetes and the promotion of healthy lifestyles.
- Focus on increasing educational outreach and awareness to at-risk populations.
- Provide culturally sensitive and community-based services.

### *Outcome Measures: BY 2010*

- Increase the number of screenings for diabetes and pre-diabetes at community centers, senior centers, health fairs, faith communities, etc.
- Increase awareness of Medicare benefits for diabetes management supplies and education
- Reduce prevalence of Type 2 Diabetes
- Reduce mortality from diabetes by 10%
- Reduce complications of diabetes by 10%



## PLAN FOR KEEPING OLDER ADULTS HEALTHY

### Action Steps:

1. Develop one core prevention and management program for older adults that recognizes age differences, cultural needs, and functional abilities/disabilities. Activate at 24 sites. **BY 2004**
2. Develop and activate three media campaigns to include education and awareness on pre-diabetes, prevention and lifestyle changes, self-management awareness, and testing for diabetes that reach members of at-risk populations. **BY 2004**
3. Distribute the Delaware Diabetes Resource Guide to 100 percent of Delaware senior centers, senior residential communities and assisted living facilities. Regularly update and print resource guides. **BY 2005**
4. Increase the number of Certified Diabetes Educators (CDEs) by four and Registered Dietitians (RDs) by two who are ethnically and racially representative of the at-risk populations, and who can provide diabetes self-management education to older adults. **BY 2005**
5. Provide information about Medicare benefits for self-management supplies and services to 100 percent of adults age 65 years and older. **BY 2004**
6. Ensure that financial costs related to diabetes management (pharmaceutical supplies, diabetes education, and medical services) are covered for 75 percent of older adults with diabetes. **BY 2010**



*“Back in 1987 my wife noticed I was going to the bathroom in the middle of the night and I had never done that before. She also noticed I was also drinking more liquids than normal. She asked me if anyone in my family had diabetes and I told her no. She said I might have diabetes. So after work I went to the doctor and he put me right in the hospital. My glucose was 452. Today my diabetes is under control and since I’m retired I enjoy helping other people stay in control of their diabetes.” — **Chuck Royal, Laurel***

7. Provide 15 sites for diabetes screenings in community settings. **BY 2004**
8. Secure two affordable transportation sources for access to medical services for older adults in rural Sussex County. **BY 2005**
9. Seek and secure federal, state, local and community funding for actions steps 1 through 8. **ONGOING**



### ***Resources for Action:***

- American Diabetes Association  
Educational resources for diabetes management and prevention  
888-342-9074 or [www.diabetes.org](http://www.diabetes.org)
- Delaware Diabetes Coalition  
Resource guide for diabetes self-management  
302-430-5088
- Delaware Division of Public Health (DPH) Diabetes Control Program  
Community based programs and resources  
302-744-4554
- Division of Services for Aging and Adults with Physical Disabilities (DSAAPD)  
Education, Speakers, Support Groups  
800-223-9074, 302-255-9390 or [www.DSAAPD.com](http://www.DSAAPD.com)
- Quality Insights of Delaware  
Education Resources, workshops on Medicare benefits and prevention services  
866-475-9669 or [www.qualityinsights.org/](http://www.qualityinsights.org/)

### ***Partners for Action:***

- AARP
- American Diabetes Association
- American Heart Association
- Certified Diabetes Educators
- City Fare
- Community Centers
- Governor's Advisory Council on Aging and Adults with Physical Disabilities
- Delaware Coalition to Promote Physical Activity and Nutrition
- Delaware Diabetes Coalition
- Ecumenical Council on Children and Families
- Delaware Health and Social Services
- DHSS Division for the Visually Impaired (DVI)
- DHSS Division of Services for Aging and Adults with Physical Disabilities (DSAAPD)
- DHSS DSAAPD Elderly Nutrition Program
- DHSS Division of Public Health - Diabetes Control Program (DPH)
- Delaware Pharmacists Society
- Delaware Senior Olympics
- Department of Veterans Affairs
- Faith Communities





- Health Care & Service Providers
- Hospitals
- Independent Senior Centers (e.g. Newark Senior Center, Clarence Fraim Senior Center, Howard Weston Senior Center)
- Lions Clubs
- Meals on Wheels Lewes/Rehoboth
- Media
- Medical Society of Delaware
- Medicare (CMS)
- Modern Maturity Center
- National Diabetes Education Program
- New Castle County Senior Services
- Produce for Better Health Foundation
- Quality Insights of Delaware
- Retirement Communities
- Sussex County Senior Services (CHEER)
- University of Delaware Cooperative Extension - Dining With Diabetes

## V. DATA AND SURVEILLANCE

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### ***Why plan for reliable data collection?***

It is important to have good data to help identify gaps in reporting and for establishing new systems as needed. Collecting data on a regular basis can help define, measure, and evaluate our progress in reducing the development of the disease and its complications.

*The Burden of Diabetes in Delaware*, released in 2002, provides our most recent and comprehensive data on the status of diabetes in the state. The data was taken from numerous sources, including the Behavioral Risk Factor Surveillance Survey (BRFSS) and the National Health Interview Survey (NHIS). The BRFSS is a national system of state-based phone surveys which collects data using an annual random sample of 4,000 adults (18 and over). The NHIS is based on a national sample only.

Unfortunately there are a number of gaps in data collection. There is little data on the cost-effectiveness of prevention programs or cost/benefit analyses that show, for example, the impact of the lack of health care on diabetes management. Cost studies related to diabetes, such as the cost of disability or the loss of salary are minimal.

Better demographic data with socioeconomic factors is needed. Data related to the incidence and prevalence of juvenile diabetes and obesity among youth is needed to calculate the ratio of Type 2 and Type 1 Diabetes. Finally, there are inadequate measures of the percentage of diabetics who are disabled.

### ***The Goal:***

- Establish a diabetes registry for collecting data on prevalence through geographic mapping and better utilize existing data bases to monitor disease trends and to develop targeted strategies.
- Improve and upgrade the data-collection methods used in Delaware to include collection of data on youth and socioeconomic status.
- Focus on decreasing the gaps in data collection on diabetes to be able to demonstrate costs and benefits of care, insurance, etc.
- Incorporate diabetes data collection into Division of Public Health's planned electronic disease surveillance system.

### ***Outcome Measures: BY 2010***

- Identify youth with diabetes and healthy nutrition practices
- Identify the incidence and prevalence of juvenile diabetes with obesity and the ratio of Type 2 to Type 1
- Collect and analyze BRFSS data on a yearly basis
- Analyze risk factors in relationship to diabetes prevalence and complications annually



## **PLAN FOR COLLECTING AND ANALYZING DATA YEARLY**

### **Action Steps:**

1. Create a data clearinghouse that would serve as a library and as an informational data collection source. **BY 2005**
2. Collect the data on children ages 17 and under to examine the total cost of uninsured diabetics compared to those with insurance. Work with the school system as a source for collecting information on juveniles and nutrition. **BY 2005**
3. Develop legislation to require reporting of diabetes and explore the possibilities of GIS (Geographic Information System) for mapping. **BY 2007**
4. Secure yearly data through the use of the BRFSS. **BY 2003**
5. Update *The Burden of Diabetes in Delaware* on a five-year interval to determine the effect of interventions regarding education and prevention. **BY 2007**
6. Improve reporting on death certificates to include diabetes as the primary cause of death. **BY 2007**
7. Develop a diabetes registry that will collect the basic data on prevalence, geographic area, and type. **BY 2008**
8. Determine baseline data for all program development. **ONGOING**
9. Conduct an annual planning session to update, evaluate, and expand data collection and programs as needed for the Delaware Diabetes Control Plan. **BY 2003**
10. Continue to collect data on diagnosis results, and access to providers through community blood screenings. Calculate early detection by gender, age, race, and geographic area. Evaluate impact and utilization rates of accepted standards of care (using flow sheets). **BY 2003**
11. Calculate the total costs of underinsured and uninsured diabetics and compare to costs of diabetics with insurance. **BY 2005**
12. Seek and secure federal, state, local, and community funding for action steps 1 through 11. **ONGOING**

### **Resources for Action:**

- American Diabetes Association  
National and state data on diabetes  
888-342-2383 or [www.diabetes.org](http://www.diabetes.org)
- Delaware Division of Public Health  
Behavioral Risk Factor Surveillance Survey (BRFSS)  
State-based survey including data on diabetes age 18 and over  
302-744-4544 or [www.deph.org](http://www.deph.org)
- Delaware Division of Public Health / Diabetes Control Program  
*Burden of Diabetes Report* / Released 2002  
302-744-4544 or [www.deph.org](http://www.deph.org)
- Delaware Department of Education  
Youth Risk Behavior Survey (YRBS)  
State-based survey on risk behavior of youths  
302-739-4885 or <http://www.doe.state.de.us/>



- Diabetes Translation / Centers for Disease Control and Prevention  
And National Institutes of Health  
National Diabetes Education Program  
National and state data on diabetes in the United States  
800-438-5383 or <http://ndep.nih.gov>
- National Diabetes Information Clearinghouse  
Data on diabetes in the United States  
302-654-3237 or [www.niddk.nih.gov](http://www.niddk.nih.gov)
- Quality Insights of Delaware  
Data and Analysis on diabetes in Delaware  
866-475-9669 or [www.qualityinsights.org/](http://www.qualityinsights.org/)

### ***Partners for Action***

- American Diabetes Association
- American Heart Association
- BRFSS
- Bureau of the Census
- Centers for Disease Control and Prevention
- Delaware Department of Education
- Delaware Department of Labor
- Delaware Division of Physicians
- Delaware Division of Public Health Statistics Center
- Delaware Health and Social Services
- Delaware Health Care Commission
- Department of Education / Youth Risk Behavior Survey (YRBS)
- Hospitals
- Legislature
- Medicaid
- Medicare
- National Health Interview Survey (NHIS)
- Providers
- Quality Insights of Delaware
- Vocational Rehabilitation Association



## VI. PREVENTION PLANNING OF DIABETES

### ***Why plan for the prevention of diabetes and its complications:***

In some cases, Type 2 Diabetes can be a preventable disease. However, as Delawareans become heavier and become less active, the risk for the development of Type 2 Diabetes is greater. The result of today's sedentary lifestyles can be seen in our youth. National studies show that 20 percent of our children are now at risk for developing Type 2 Diabetes.

The state has led a number of recent initiatives to promote the prevention of diabetes and its complications. *Healthy Delaware 2010* and the Division of Public Health's Diabetes Control Programs release of *The Burden of Diabetes in Delaware* have helped raise the level of awareness in the community. Recent media campaigns such as that of the Delaware Health Care Commission and the Division of Public Health's Diabetes Control Program prevention outreach, the Lieutenant Governor's Physical Activity Challenge, and the Delaware Health and Social Services' Division of Public Health's campaign "Get Up and Do Something" are working to increase public awareness about the importance of physical activity and its relationship to wellness.

Through efforts of the Delaware Health Care Commission, the Medical Society of Delaware has developed the "Practice Guidelines for Diabetes Care" and is aggressively promoting implementation for peer recognition and usage. In addition, community initiatives that provide opportunities for screening and eye screening are rising in frequency.

Still more can be done; on prevention of the disease and its complications through continued awareness and community education.

### ***The Goal:***

Make the prevention of diabetes and its complications a statewide focus. Raise awareness of the disease through media campaigns, educate citizens about a healthy lifestyles (nutrition and exercise choices), and improve exercise and nutrition programs.

### ***Outcome Measures:***

- Increase detection of persons identified with diabetes through community health screenings
- Decrease number of persons with diabetes who develop complications from the disease
- Increase number of providers who use the Medical Society of Delaware – Practice Guidelines for Diabetes Care and/or The American Diabetes Associations Standards of Care
- Increase Delawareans' knowledge of the importance of good control through basic understanding of the standards of care and their relationship to self-management of diabetes

## **ACTION PLAN FOR KEEPING EVERY DELAWAREAN HEALTHY**

### ***Action Steps:***

1. Promote physical activity and nutrition through strong alliances between the Delaware Diabetes Coalition and physical activity and health advocates. **ONGOING**
2. Work towards an increased intake of at least five fruits and vegetables a day. Activate the “5 a day program” in 8 community settings that include with diabetes self-management education programs. **BY 2004**
3. Activate three media campaigns for prevention of Type 2 Diabetes, with a focus on early development years for lifestyle changes and nutrition. Key messages to include pre-diabetes, warning signs and symptoms for the undiagnosed. **BY 2004**
4. Activate three media campaigns with direct focus on self-glucose monitoring, HgA1c testing twice a year, annual foot, eye and dental exam, and other standards of care to reduce complications from diabetes. **BY 2004**
5. Support the Livable Delaware approach regarding future development and growth throughout Delaware. Implement in all new developments a plan to increase walking, biking, and other recreation. Establish guidelines that encourage our cities and towns to enhance good nutrition and increased physical activity. **BY 2006**
6. Incorporate the Lieutenant Governor’s Challenge and the Get Up and Do Something campaign into 12 diabetes community based programs. Such programs can reduce the onset of Type 2 Diabetes and help reduce complications from diabetes through healthy lifestyle changes. **BY 2004**
7. Ensure that all Delawareans who are at high-risk for Type 2 Diabetes are provided screening for early detection. Hold community screenings at 30 sites statewide that are proportionate to county populations. Create comprehensive education centers in each county. Identify transportation partners for screening and use of other mobile van services for screening. **BY 2004**
8. Ensure that 50 percent of Delaware’s primary care centers have access to Certified Diabetes Educator services. **BY 2010**
9. Develop protocols for early detection of Type 2 Diabetes and administer to 50 percent of the Delaware wellness centers. **BY 2005**
10. Ensure that 50 percent of all Delaware women during pregnancy have access to diabetes management supplies and services. **BY 2005**
11. Develop an annual flu campaign focusing on the importance of getting your flu shot if you have diabetes. **BY 2004**
12. Seek and secure federal, state, local, and community funding for action steps 1 through 11. **ONGOING**





### **Resources for Action:**

- American Diabetes Association  
Alert – English / Spanish – Are You At Risk for Diabetes  
888-342-2383 or 800-342-2383 English / Spanish call center or [www.diabetes.org](http://www.diabetes.org)
- American Heart Association  
Programs designed for heart health and stroke prevention  
302-633-3964 or [www.americanheart.org](http://www.americanheart.org)
- Delaware Coalition to Promote Physical Activity and Healthy Nutrition  
Coalition for increased physical activity and healthy eating  
Get Up and Do Something campaign  
302-744-4544 or <http://www.getupanddosomething.org>
- Delaware Division of Public Health / Diabetes Control Program  
Community programs and development for prevention of Type 2 Diabetes  
302-744-4544 or [www.deph.org](http://www.deph.org)
- The Lieutenant Governor's Challenge  
A statewide challenge focused on increasing physical activity. Make the challenge and call 302-577-8787 or <http://www.state.de.us/lsgov/>  
<http://www.getupanddosomething.org>
- Livable Delaware  
Promotes development to provide access to healthier lifestyle  
302-739-3090 or <http://www.state.de.us/planning/livedel/>
- National Diabetes Education Program  
Centers for Disease Control and Prevention / Division of Diabetes Translation  
Educational materials and programs for prevention of diabetes and its complications  
770-488-5037 or <http://www.ndep.nih.gov>
- Produce for Better Health  
Educational program for good nutrition through increased intake of fruit and vegetables  
302-235-2329 or <http://www.5aday.org/>
- Quality Insights of Delaware  
Educational materials, workshops, Medicare preventative services  
866-475-9669 or [www.qualityinsights.org/](http://www.qualityinsights.org/)

### **Partners for Action**

- American Diabetes Association
- American Heart Association
- Centers for Disease Control and Prevention/Division of Diabetes Translation
- Community Centers
- Delaware Coalition to Promote Physical Activity and Healthy Nutrition
- Delaware Diabetes Coalition
- Delaware Division of Public Health/Diabetes Control Program
- Delaware Health and Social Services
- Delaware Pharmacists Society
- Division of Parks and Recreation
- Dining with Diabetes

- Generation Fit
- Governor’s Council on Hispanic Affairs
- Grocery Stores
- Health Clinics
- Health Professionals
- Hospitals
- Healthy Delaware 2010
- Healthy Wilmington 2010
- Insurance Companies
- Legislators
- Libraries
- Lieutenant Governor’s Challenge
- Livable Delaware
- Malls
- Media
- Medicaid
- Medicare
- Metropolitan Wilmington Urban League
- National Diabetes Education Program
- Places of Worship
- Produce for Better Health
- Quality Insights of Delaware
- Schools
- Service Organizations
- Town/County/City Planners
- Universities
- Wellness Centers
- Worksites



## TAKE ACTION AND FIND OUT IF YOU'RE AT RISK TAKE THIS TEST



### Know Your Score

#### American Diabetes Association

Find out if you are at risk for having diabetes NOW. Write in the points next to each statement that is true for you. If a statement is not true, put a zero. Then add your total score.

- I am a woman who has had a baby weighing more than nine pounds at birth .....Yes 1 \_\_\_\_
  - I have a sister or brother with diabetes .....Yes 1 \_\_\_\_
  - I have a parent with diabetes.....Yes 1 \_\_\_\_
  - My weight is equal to or above that listed in the chart .....Yes 5 \_\_\_\_
  - I am under 65 years of age **and** I get little or no exercise.....Yes 5 \_\_\_\_
  - I am between 45 and 64 years of age .....Yes 5 \_\_\_\_
  - I am 65 years old or older .....Yes 9 \_\_\_\_
- TOTAL \_\_\_\_

#### If You Scored 10 or More Points

You are at high risk for having diabetes. Only your health care provider can check to see if you have diabetes. See yours soon and find out for sure.

#### If You Scored 3-9 Points

You are probably at low risk for having diabetes now. But don't just forget about it. Keep your risk low by losing weight if you are overweight, being active most days, and eating low-fat meals that are high in fruits and vegetables, and whole-grain foods.

## AT-RISK WEIGHT CHART

### Body Mass Index

Height in feet and inches without shoes	Weight in pounds without clothing	Height in feet and inches without shoes	Weight in pounds without clothing
4'10"	129	5'8"	177
4'11"	133	5'9"	182
5'0"	138	5'10"	188
5'1"	143	5'11"	193
5'2"	147	6'0"	199
5'3"	152	6'1"	204
5'4"	157	6'2"	210
5'5"	162	6'3"	216
5'6"	167	6'4"	211
5'7"	172		

If you weigh the same as or more than the amount listed for your height, you may be at risk for diabetes.



## **PLANNING FOR THOSE AT RISK FOR DIABETES**

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Your risk for diabetes goes up as you get older, gain too much weight, or if you do not stay active. Diabetes is more common in African Americans, Latinos, Native Americans, Asian Americans and Pacific Islanders. Risk factors for diabetes include:

- Having high blood pressure (at or above 130/80)
- Having a family history of diabetes
- Having diabetes during pregnancy or having a baby weighing more than nine pounds at birth

***For free Alert Brochures for your community program call your local American Diabetes Association at 888-342-2383.***

## **ACTION SIGNS AND SYMPTOMS OF DIABETES**

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### ***Type 1 Diabetes – sudden occurrence of symptoms***

- Rapid weight loss
- Fatigue
- Excessive thirst
- High amounts of sugar in the urine and/or blood
- Extreme hunger
- Frequent urination
- Nausea and vomiting
- Irritability and mood changes

### ***Type 2 Diabetes – these symptoms occur gradually, but should receive immediate medical attention. These symptoms increase risk in youth for Type 2 Diabetes.***

- Numbness or tingling in the feet, fingers, or legs
- Frequent infections of the skin
- Blurred vision
- Slow healing of bruises and cuts
- Elevated blood sugar
- Itchy skin
- Recurring skin, urinary tract or gum infections
- Drowsiness
- Any of the symptoms of Type 1 Diabetes



## VII. MEDICAL SERVICE PROVIDERS

### *Why plan for our medical service providers?*

Medical health providers in Delaware face a number of issues and barriers to providing care to patients with diabetes. There is an overall lack of coordination of diabetes education information in the state. The Medical Society of Delaware and Quality Insights of Delaware work with primary care physicians to adhere to the Practice Guidelines for Diabetes Care and /or ADA Standards of Care. Providers cite a lack of time to provide in-depth discussion with patients about what they can do to manage their diabetes. Typically, medical providers refer patients to existing resources such as the Resource Guide, website, meal plans, support groups, Visiting Nurse Association and Certified Diabetes Educators (CDEs). Most practices do not have Certified Diabetes Educators on staff to work directly with patients to provide needed resources, and their support staff may lack training. Providers also face issues relating to insurance reimbursement for diabetes treatment.

There is a need for CDE's who are racially diverse and bilingual. Changing demographics show a increase in minority and aging populations, meaning that the growth of chronic illnesses like diabetes will rise. There is an absence of endocrinologists and Certified Diabetes Educators in Kent and Sussex Counties limiting treatment opportunities. More emphasis on education by Certified Diabetes Educators and Registered Dietitians is needed to help patients manage their diabetes.

### **The Goal:**

- Increase the quality of care given by medical providers through encouraging compliance with the ADA Standards of Care and the Medical Society of Delaware's Practice Guidelines for Diabetes Care.
- Enhance the quality of care through a statewide system of communication among insurance providers, primary care doctors and support staff with regard to patient education and treatment issues.
- Create a reimbursement and insurance referral system that allows physicians to better serve patients with diabetes.
- Enhance opportunities for patients with CDEs, county education centers and educational outreach.

### **Outcome Measures: BY 2010**

- Increase percentages of people with diabetes who receive the recommended HgA1C tests
- Decrease in the number of patients who develop complications resulting from diabetes
- Increase number of persons with diabetes who stop smoking and lose weight
- Increase number of persons with diabetes who increase physical activity
- Increase number of referrals of persons diagnosed with diabetes through community screenings
- Increase number of Certified Diabetes Educators in Delaware, racially diverse and bilingual
- Increase percentage of people with diabetes who receive recommended eye exams
- Increase percentage of people with diabetes who receive recommended foot exams
- Increase number of Delawareans tested for pre-diabetes





- Increase percentage of people with diabetes who receive recommended influenza and pneumococcal vaccines.



## **PLAN TO SUPPORT OUR PROVIDERS**

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### **Action Steps:**

1. Work with 50 percent of Delaware's insurance industry to secure reimbursement for diabetes-management supplies and services and for preventive health care. **BY 2007**
2. Maintain the implementation of the ADA Standards of Care/ Medical Society of Delaware Practice Guidelines For Diabetes Care, distribute more widely to schools, the worksite, and doctors. Ensure that 65 percent of Delaware providers, and diabetes educators have the ADA Standards of Care / Medical Society of Delaware Practice Guidelines For Diabetes Care and adhere to them. **BY 2006**
3. Attract and retain quality health care providers in Delaware who are specialists in the field. **BY 2007**
4. Recruit four Certified Diabetes Educators reflecting the cultural and ethnic diversity of the population to work throughout Delaware. **BY 2005**
5. Ensure that five of every seven Delaware healthcare providers provide early detection health services to all patients, and re-screen at the proper time for both the detection of undiagnosed diabetes and pre-diabetes. **BY 2008**
6. Ensure that five of the seven Delaware major health systems (Nanticoke, Beebe, Bayhealth, Christiana Care, Veterans Hospital, Alfred I. DuPont Hospital for Children, and St. Francis) and three federally qualified health centers (Henrietta Johnson, Kent Community Health Center, and Westside Health), and community health center (La Red), meet the National Standards for Excellence in Diabetes Education recognized by the American Diabetes Association and adhere to both the ADA Standards of Care and the Medical Society of Delaware's Practice Guidelines for Diabetes Care. **BY 2009**
7. Establish three diabetes-care coordinators statewide to provide patient linkages to medical and support services for all Delawareans diagnosed with Type 1 and Type 2 Diabetes. **BY 2007**
8. Ensure that 50 percent of the general practice doctors in Delaware understand the importance of screening for pre-diabetes. **BY 2005**
9. Secure outreach to three health systems in Delaware to provide and participate in a comprehensive community-focused screening effort for early detection of Type 2 Diabetes and Pre-Diabetes of all ages who meet high-risk criteria. **BY 2005**
10. Establish a partnership among coalitions, medical providers, and employers to provide targeted information and testing for 10 outreach events such as health fairs and information forums. **BY 2005**
11. Train 50 percent of medical service providers support staff on communicating with patients about diabetes. **BY 2005**
12. Recognize five medical providers each year who successfully implement standards of care and meet improvement goals in the diagnosis and treatment of patients with diabetes. **BY 2005**
13. Seek and secure federal, state, and local funding for action steps 1 through 12. **ONGOING**





### ***Resources for Action:***

- American Diabetes Association  
National Standards of Care for Diabetes  
Professional Education Program for Providers  
888-342-2383 or [www.diabetes.org](http://www.diabetes.org)
- Delaware Division of Public Health / Delaware Diabetes Control Program  
Cardiovascular / Diabetes Health Disparity Collaborative partnership  
302-744-4544 or [www.deph.org](http://www.deph.org)
- Delaware Diabetes Coalition  
Health Professional Diabetes Resource Guide  
302-430-5088
- Medical Society of Delaware  
Practice Guidelines for Diabetes Care  
800-348-6800 or [www.medsocdel.org](http://www.medsocdel.org)
- National Institute of Diabetes and Digestive and Kidney Diseases  
Providers educational materials, conducts and supports basic and clinical  
research on diabetes  
301-496-7422 or <http://www.niddk.nih.gov/index.htm>
- Quality Insights of Delaware  
Educational material and quality improvement tools for providers  
866-475-9669 or [www.qualityinsights.org/](http://www.qualityinsights.org/)

### ***Partners for Action***

- American Diabetes Association
- Certified Diabetes Educators
- Clinicians' Network
- Delaware Diabetes Coalition
- Delaware Health Care Commission
- Delaware Division of Public Health - Diabetes Control Program
- Emergency Room
- Health Specialists
- Health Care for the Homeless Clinicians' Network
- Health Clinics
- Health Systems
- Hospitals
- Legislature
- Medicaid
- Medicare
- Medical Society of Delaware
- National Diabetes Education Program
- Primary Care Providers
- Quality Insights of Delaware

## PLAN ACTION FOR THREE GROUPS OF DELAWAREANS

### **Pre-Diabetes**

Changes in diet and increased physical activity in early diagnosis of pre-diabetes can prevent the development of Type 2 Diabetes. Through lifestyle changes we can avoid the development of Type 2 Diabetes.

### **Undiagnosed**

Many people have diabetes and do not get diagnosed until they develop a complication from the disease. Type 1 Diabetes is usually diagnosed in children and young adults during the early stages of the disease. However, Type 2 is now affecting Delawareans of all ages and can go undiagnosed for years, until complications have developed.

### **Diagnosed**

For those diagnosed with either Type 1 or Type 2 Diabetes, early diagnosis and a management plan with good control can greatly reduce the risk of developing complications from the disease.

Only your health care provider can determine if you have pre-diabetes. Ask your provider if you're at risk for diabetes and get tested. Early intervention can greatly reduce future complications and reduce the financial burden of the disease.



*“After learning I had diabetes I decided three things. I decided I would die with diabetes, not of it. That I didn’t have to like any of it but I had to accept it. And the third thing I decided was I would fuss no more than twenty minutes a day about my condition. And that has worked.”*  
— **Karen Williams, Wilmington**



## VIII. HEALTH DISPARITIES

### *Plan for reducing or eliminating health disparities*

Diabetes disproportionately affects minority populations. Generally minority populations (African American, Native American, Asian American, and Latinos) are more at risk of developing diabetes and are more likely to suffer from complications related to the disease. At the same time, minorities have less access to treatment, experience lower quality of care, and face other barriers that reduce the likelihood of early diagnosis. These factors limit their ability to effectively manage the disease. Information about at-risk factors related to diabetes, screening, and information about how to manage the disease is not widely available to high-risk populations especially to those who are non-English speaking.

There are differences in treatment based on socioeconomic status. For example, low income and uninsured individuals may not seek treatment, thus contributing to a delay in diagnosis. Cultural differences create a challenge for health prevention strategies that require lifestyle changes. Certified Diabetes Educators and other diabetes specialists do not represent the population in terms of ethnic and cultural diversity. Often there are language barriers between medical providers and patients resulting in poor communication.



*"Many people do not understand the importance of medical insurance for a diabetic, we have struggled to get help for Amanda. My brother has many severe complications from lack of insurance and not being able to get help before his diabetes became a severe disability. I do not want to see that happen to my little girl or anyone else." — Amanda Eagle with her mother Beth Eagle, Georgetown*

Geographic barriers have contributed to health disparities because medical providers and services are not always available. Certain areas of Wilmington, pockets in New Castle County, and numerous areas in Kent and Sussex Counties have significant disparities. Kent and Sussex Counties have clear shortages of medical professionals in endocrinology, primary care and dentistry. Transportation is also a disparity issue in Sussex County. None of Delaware's Certified Diabetes Educators is Spanish-speaking and only one is African American.



Existing outreach programs such as Diabetes Sundays and Search Your Heart are attempting to address the gap by reaching target populations and addressing cultural sensitivities. The Division of Public Health's Diabetes Control Program places an emphasis on developing programs in high-risk communities.

### **The Goal:**

- Close the gap between the general population and those members of high-risk populations who are at danger of developing the disease and its complications by targeting the following high-risk groups: African Americans, Latinos, Asian Americans, Native Americans, senior citizens, overweight youth, low-income, uninsured, and underinsured.
- Ensure that diabetes education and prevention programs are culturally relevant, community-based, comprehensive, coordinated and properly communicated.

### **Outcome Measures: BY 2010**

- Reduce incidence and prevalence of diabetes in high-risk populations.
- Reduce complications for high-risk populations.
- Reduce risk in underinsured and uninsured populations.
- Reduce diabetes mortality rate among African American females in Sussex County
- Increase number of Certified Diabetes Educators in Delaware, particularly those who are racially diverse and bilingual.
- Increase availability of multilingual educational materials.
- Increase number of community programs that are culturally diverse.

## **PLAN TO ELIMINATE HEALTH DISPARITIES**

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### **Action Steps:**

1. Conduct outreach and support to increase the number of Certified Diabetes Educators by four in Delaware. Of those, two should represent racially diverse communities and be able to provide service in more than one language. **BY 2005**
2. Provide materials on preventing diabetes and promoting self-management in Spanish in an easy-to-read format and provide to 12 major health, employment, or community centers that serve the Latino community. **BY 2004**
3. Reimburse the cost of management supplies for diabetes treatment for 75 percent of uninsured and underinsured Delawareans. **BY 2010**
4. Establish a pharmaceutical and supply bank in 2 of the 3 Delaware counties for those who are uninsured or underinsured. **BY 2008**
5. Incorporate health literacy into 50 percent of literacy education programs in Delaware. **BY 2007**





6. Identify existing programs that serve high-risk populations and determine gaps in service. **BY 2004**
7. Provide and activate a core community education and prevention program at 16 sites for high-risk populations. **BY 2005**
8. Develop van service for a diabetes outreach program in Sussex County. **BY 2006**
9. Provide the Spanish edition of the Diabetes Resource Guide to 40 health, employment, and community sites that serve the Latino community. **BY 2005**
10. Seek and secure federal, state, local, corporate, and community funding for action steps 1 through 9. **ONGOING**

### **Resources For Action:**

- Delaware Health and Social Services  
Division of Services for Aging & Adults with Physical Disabilities  
Health services, education, speakers, and support groups for the elderly  
302-255-9390, 800-223-9074 or [www.DSAAPD.com](http://www.DSAAPD.com)
- Department of Health and Social Services  
Delaware Division of Public Health / Delaware Diabetes Control Program  
Cardiovascular and Diabetes Health Disparity Collaborative  
302-744-4544
- Delaware Health Care Commission  
Reports, data, information on uninsured population  
302-744-1220 or <http://www.state.de.us/dhcc/>
- Henrietta Johnson Medical Center  
Patient Care, Diabetes Management Program with Certified Diabetes Educator  
302-655-6190 or <http://www.contactdelaware.org/comminfo/y20zr711.htm>
- La Red  
Patient Care, Diabetes Management Program with Certified Diabetes Educator  
302-855-1233
- Kent Community Health Center  
Patient Care, Diabetes Management Program with Certified Diabetes Educator  
302-678-2000 or <http://www.drminc.org>
- Westside Health, Inc.  
Patient Care, Diabetes Management Program with Certified Diabetes Educator  
302-655-5822 or <http://www.westsidehealth.org/>
- Health Care for the Homeless Clinicians' Network  
Linking professionals on improving quality of life and health for the homeless  
615-226-2292 or <http://www.nhchc.org/Network/aboutnetwork.htm>

## ***Partners for Action***

- Charitable Organizations
- Delaware Department of Education
- Delaware Department of Labor
- Delaware Department of Transportation
- Delaware Diabetes Coalition
- Delaware Division of Public Health / Delaware Diabetes Control Program
- Delaware Division of Public Health / Office of Minority Health
- Delaware Food Bank
- Delaware Health Care Commission
- Delaware Nurses Association
- Delaware State University
- Delaware Poultry Council
- Dining with Diabetes / University of Delaware
- Division of Visually Impaired / DHSS
- Faith Communities
- Governor's Council on Hispanic Affairs
- Health Care for the Homeless Clinicians' Network
- Health Clinics
- Health Professional Organizations
- Healthy Delaware 2010
- Healthy Wilmington 2010
- Hospitals
- Insurance Companies
- Latin American Community Center
- La Esperanza
- Legislature
- Media
- Medicaid
- Medicare
- Metropolitan Wilmington Urban League
- Pharmaceutical Companies
- Produce for Better Health
- Strong Communities of Sussex County
- Vocational Rehabilitation Insurance Companies





## VIII. COMMUNITY INTERVENTION AND PROGRAM DEVELOPMENT

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### *Why community programs?*

With a diabetes epidemic, it's important that we work side by side, bringing programs to the communities that will help reduce the emotional, physical, and financial burden of diabetes. By working with our community partners we can develop a grassroots effort to build awareness, education, and prevention to a larger percentage of Delawareans. It is vital that effective interventions are developed in all areas of Delaware, including cities, small towns, and rural communities.

A number of community programs exist in each county, administered by organizations including; Delaware Health and Social Services / Division of Public Health / Diabetes Control Program, the Delaware Health Care Commission, hospitals, universities, community health centers, and non-profit organizations administer these programs. In New Castle County the list includes the State of Delaware, American Diabetes Association (ADA), Christiana Care Health Systems, (ADA Recognized program, Living With Diabetes), University of Delaware (Dining with Diabetes), Alfred I. DuPont Hospital for Children, St. Francis Hospital, VA Medical Center, West Side Health (Diabetes Management Program), Henrietta Johnson, and Super G Supermarket (ADA approved for education). In Kent and Sussex counties the list includes the State of Delaware, University of Delaware (Dining with Diabetes), Bayhealth Medical Center (Diabetes and You) (ADA Recognized program, Diabetes And You Education), Beebe Medical Center Outpatient Medical (ADA Recognized program, An Education Series), Nanticoke Hospital, La Red Community Health Center (Sussex), Kent Community Health Center. Support groups operate at many senior centers statewide.

There is a need for more effective collaboration among programs to incorporate cultural competency into service delivery and appropriate geographic placement of interventions.

### *The Goal:*

- Improve community programs that focus on intervention and wellness by fostering effective collaboration, eliminating redundancies, and improving the quality of service delivery to at-risk populations throughout the state.

### *Outcome Measures: BY 2010*

- Reduce gaps in service and duplication of efforts
- Increase number of leveraged partnerships and collaborations
- Increase diagnosis of diabetes
- Reduce mortality rates
- Reduce morbidity rates
- Reduce health disparities
- Increase access to care
- Encourage healthier lifestyles



## **PLAN FOR EFFECTIVE AND MEASURABLE COMMUNITY PROGRAMS AND INTERVENTIONS.**

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### **Action Steps:**

1. Develop a statewide clearinghouse so programs do not duplicate services.  
**BY 2006**
2. Activate 12 community based programs in faith-based organizations, community centers, clubs, service organizations, and neighborhoods to promote diabetes awareness, education, prevention, and early detection. **BY 2004**
3. Train 12 volunteers to serve as health educators for awareness and prevention.  
**BY 2007**
4. Provide uniform education, awareness, and prevention in 75 percent of the statewide programs. **BY 2006**
5. Seventy-five percent of programs conducted should reflect the characteristics of the community in which they are held. **BY 2006**
6. Seek and secure federal, state, local, corporate, and community funding for action steps 1 through 5. **ONGOING**

### **Resources for Action:**

- American Diabetes Association  
Diabetes Sundays – African American faith-based program  
DAR (Diabetes Assistance and Resources) – Latino program  
888-342-2383, 800-342-2383 English / Spanish call center or [www.diabetes.org](http://www.diabetes.org)
- American Heart Association  
Search Your Heart – church-based program for heart health and stroke prevention  
302-633-3964 or [www.americanheart.org](http://www.americanheart.org)
- Delaware Division of Public Health / Diabetes Control Program  
Community programs and development  
302-744-4544 or [www.deph.org](http://www.deph.org)
- Diabetes Today  
Centers for Disease Control and Prevention  
A course designed for leaders to develop effective community programs  
240-314-5242 or [www.diabetestodayntc.org](http://www.diabetestodayntc.org)
- Dining with Diabetes  
Delaware Cooperative Extension / University of Delaware  
Workshops include diabetes education, and cooking demonstrations.  
302-831-1327 or [ksplane@udel.edu](mailto:ksplane@udel.edu)
- National Diabetes Education Program  
National Institutes of Health and Centers for Disease Control and Prevention  
Control Your Diabetes For Life / Diabetes Community Partnership Guide  
Educational materials specially designed for community partnerships  
800-438-5383 or <http://ndep.nih.gov>

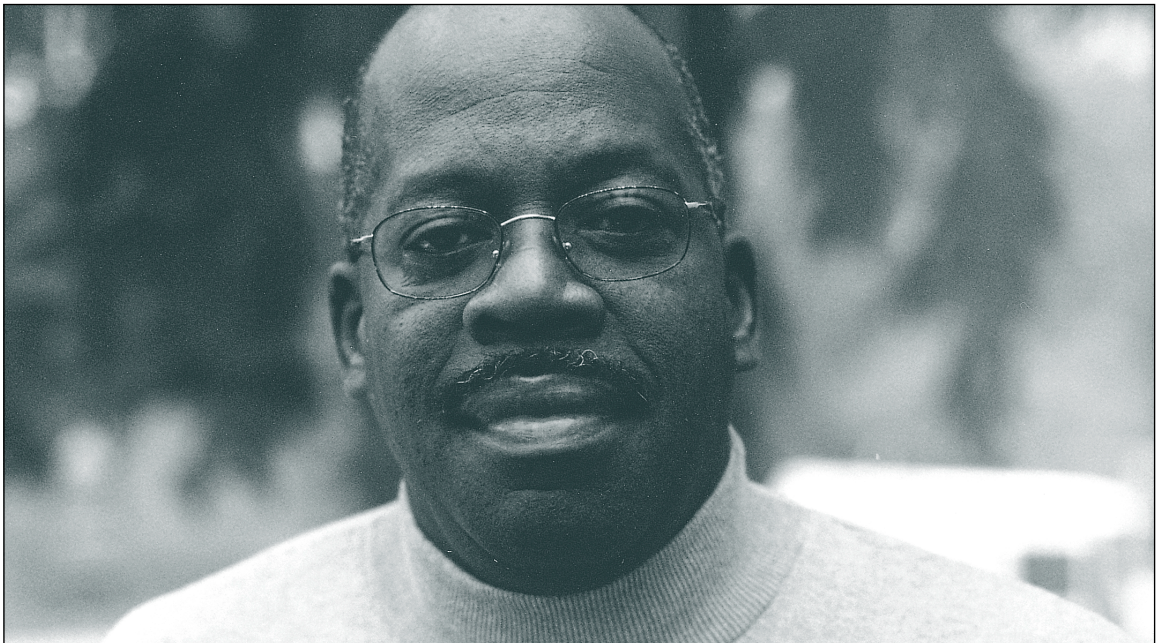
### **Partners for Action**

- American Diabetes Association
- American Heart Association
- Centers for Disease Control and Prevention/Diabetes Translation





- Clubs
- Community Centers
- Delaware Coalition to Promote Physical Activity and Healthy Nutrition
- Delaware Division of Public Health/Diabetes Control Program
- Delaware Diabetes Coalition
- Delaware Pharmacists Society
- Dining with Diabetes
- Government
- Grocery Stores
- Hospitals
- Health Clinics
- Healthy Delaware 2010
- Healthy Wilmington 2010
- Libraries
- Malls
- Media
- Non Profits
- Places of Worship
- Produce for Better Health
- Quality Insights of Delaware
- Schools
- Service Organizations
- Universities
- Wellness Centers
- Worksites



*“From 1987 to 1992 my diabetes was up and down. Finally, I got with my doctor and developed a program. I cleaned up my act, followed the program, and the diabetes got a lot better. I’ve been in control of it since.” – Keith Field, Delaware City*



## **X. ACCESS TO CARE**

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### ***Why Plan for Increasing Access to Health Care?***

Access to care will play an important role in reducing or eliminating Delaware's health disparities. To reduce the burden of diabetes and prevent the development of Type 2 Diabetes, individuals must have access to preventive services and diabetes education for self-management and its supplies. Delawareans must also have access to information about risk factors, symptoms, proper management, and the importance of good control. The complications of this disease define the importance of providing access to care for all people who are diagnosed, un-diagnosed, or may have pre-diabetes.

There are four areas of concern for access to care in Delaware with regard to diabetes prevention and management: geography, financial barriers, cultural barriers, and system impediments.

Access to care is limited in Sussex County by availability of transportation to health service providers. Specialty care is accessible only in New Castle County; for example, Alfred I. DuPont Hospital for Children is the only children's hospital. Many Delawareans are uninsured or underinsured and lack adequate coverage for laboratory costs, self management supplies, and pharmaceuticals. Many are not aware of available services, such as the Nemours Clinic, Prescription Assistance Program, and other programs that may provide financial assistance.

Cultural barriers include the stigma regarding care, language, trust issues, and lack of sensitivity of providers. Special populations like the visually impaired, physically disabled, and those with mental health issues have problems accessing care. Other populations, such as senior citizens and children, have access problems as well. Finally, navigating the complicated system of health-care treatment, pharmaceuticals, supplies, and insurance are problems for most people.

### ***The Goal:***

- Provide more accessible programs to eliminate barriers to treatment and education programs for at-risk populations, based on geography, financial ability, cultural relevancy and health system issues.

### ***Outcome Measures: BY 2010***

- Increase numbers of screenings for diabetes for at-risk populations
- Increase coverage of costs associated with diabetes
- Coordinate medical services and supplies for those incarcerated before release from Delaware prisons and youth detention centers
- Increase diabetes services and supplies for the uninsured and underinsured





## PLAN SO EVERYONE HAS ACCESS TO MEDICAL CARE

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### **Action Steps:**

1. Ensure that 75 percent of Delawareans have access to care for the diagnosis and management of diabetes. **BY 2010**
2. Establish 1 mobile van to provide educational outreach on diabetes for otherwise inaccessible areas for all counties. **BY 2009**
3. Obtain medical supplies for 50 percent of diabetic inmates prior to release from incarceration. Refer those to be released to organizations that provide medical supplies for diabetes management before returning to the community. **BY 2005**
4. Develop a full infrastructure with two of the four community health centers (Henrietta Johnson, La Red, Westside Health, and Kent Community Health Center), for diabetes prevention, early diagnosis and self-management. Offer free screenings, Medicare benefits information, and pharmacy assistance. Encourage community health centers and other community-based programs providing services relating to diabetes to include evening and weekend hours of operation to improve access. **BY 2007**
5. Work with 50 percent of Delaware health care insurance suppliers to simplify and ensure consistency among services and benefits, develop a buddy system and increase case management services. **BY 2006**
6. Provide culturally based training for 50 percent of all Delaware providers and increase bilingual diabetes case managers. **BY 2004**
7. Establish a pharmaceutical and supply bank in two of the three counties for those who are uninsured or underinsured and meet specific qualifications for diabetes self-management care. **BY 2008**
8. Allocate funds to secure treatment services for 50 percent of diabetics in Delaware who are uninsured or underinsured. **BY 2010**
9. Seek and secure federal, state, local, corporate, and community funding for action steps 1 through 8. **ON GOING**

### **Resources for Action:**

- Delaware Health Care Commission  
Reports, data, information on uninsured population  
302-744-1220 or <http://www.state.de.us/dhcc/>
- Delaware's Division of Public Health / Diabetes Control Program  
Cardiovascular / Diabetes Health Disparity Collaborative  
302-744-4544 or [www.deph.org](http://www.deph.org)
- Delmarva Rural Ministries, Inc.  
Health care, and community and social services for those in need, including migrant and seasonal farm workers  
302-678-2000 or <http://www.drminc.org>
- Delaware's Division of Public Health / Diabetes Control Program  
Data, information, resources, and consultation on many aspects of health care and prevention  
302-739-4701 or [www.deph.org](http://www.deph.org)

- Health Resources and Services Administration  
Funding, programs, and information to increase access and train a diverse health workforce  
888-ASK-HRSA or <http://newsroom.hrsa.gov/efoia.htm>
- Henrietta Johnson Medical Center  
Patient Care, Diabetes Management Program with Certified Diabetes Educator  
302-655-6190 or <http://www.contactdelaware.org/comminfo/y20zr711.htm>
- La Red  
Patient Care, Diabetes Management Program with Certified Diabetes Educator  
302-855-1233
- Kent Community Health Center  
Patient Care, Diabetes Management Program with Certified Diabetes Educator  
302-678-2000 or <http://www.drminc.org>
- Westside Health, Inc.  
Patient Care, Diabetes Management Program with Certified Diabetes Educator  
302-655-5822 or <http://www.westsidehealth.org/>
- Health Care for the Homeless Clinicians' Network  
Linking professionals on improving quality of life and health for the homeless  
615-226-2292 or <http://www.nhchc.org/Network/aboutnetwork.htm>
- National Diabetes Information Clearinghouse  
Publication: Financial Help for Diabetes Care / includes contact numbers  
800-860-8747 or [ndic@infor.niddk.nih.gov](mailto:ndic@infor.niddk.nih.gov)



### ***Partners in Action***

- Centers for Disease Control and Prevention / Diabetes Translation
- Corporations
- Delaware Division of Public Health / Office of Minority Health
- Delaware Health Care Commission
- Delaware Health and Social Services / Delaware Division of Public Health / Diabetes Control Program
- Delaware Health and Social Services / Division of State Service Centers
- Faith Communities
- Health Care for the Homeless Clinicians' Network
- Cardiovascular and Diabetes Health Disparities Collaborative
- Health Resources and Services Administration
- Henrietta Johnson Health Center
- Hospitals
- Indian Health Services
- Kent Community Health Center / Delmarva Rural Ministries
- La Red
- Legislatures
- Lions Clubs





- National Center for Migrant Health
- National Congress of American Indians
- National Institutes For Health
- National Urban League
- Non-Profits
- Medicaid
- Medical Society of Delaware
- Medicare
- Pharmaceutical Companies
- Westside Health, Inc.



