

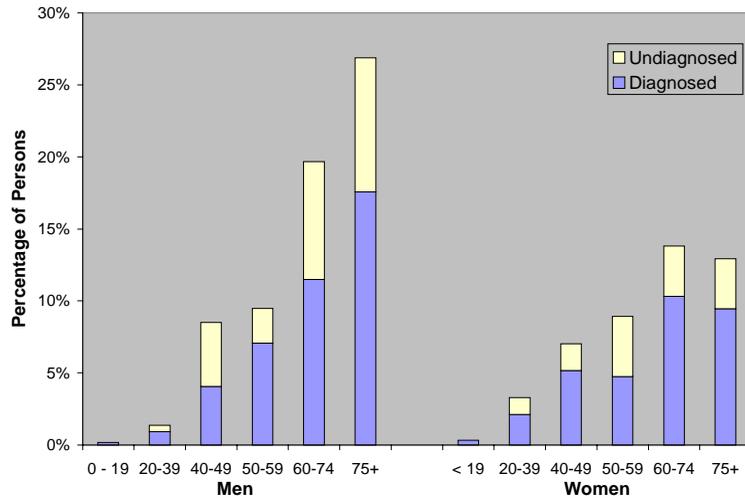
Diabetes is a serious disease that can lead to blindness, kidney failure, amputation, heart disease, and death. Of people with diabetes, 5-10% have Type 1 (insulin deficiency) which usually occurs before age 20, and 90-95% have Type 2 (inability of the body to use insulin properly). Type 2 is usually diagnosed after age 40, but is increasingly being recognized in younger people.

Good control of blood glucose and simple preventive care, like foot and dilated eye exams, can prevent or delay many diabetes complications. Unfortunately, many people don't know they have diabetes.

This health status update reviews trends for diabetes in Utah and presents new estimates of the number of people who have diabetes, including those with undiagnosed diabetes.

Diabetes Prevalence

Figure 1. Estimated prevalence of diagnosed and undiagnosed diabetes by age and sex, Utah 2000.



Source: 1996 Utah Health Status Survey and NHANES III

- An estimated 97,000 Utahns have diabetes. Of those, about 1 in 3 or 34,000 Utahns with diabetes are undiagnosed.
- An estimated 90-110,000 Utahns do not have diabetes but meet criteria for impaired glucose tolerance (IGT). People with IGT are at increased risk of developing diabetes.
- Diabetes is more common among members of several ethnic minority groups. The NHANES data indicate that diabetes is 1.5 to 2.5 times as common among Black and Hispanic people. Other data indicate that risk is increased for Pacific Islander and American Indian people also.

Diagnosed and Undiagnosed Diabetes

Figure 2. Estimated numbers of Utahns with diagnosed and undiagnosed diabetes by age and gender, 2000.

	0 - 19	20 - 39	40 - 49	50 - 59	60 - 74	75 and over	All Ages
Undiagnosed Diabetes							
Men	*	1,430	6,130	2,170	6,130	3,140	19,000
Women	*	3,800	2,610	3,820	2,890	1,750	14,870
Total	*	5,230	8,740	5,990	9,020	4,890	33,870
Diagnosed Diabetes							
Men	640	3,140	5,620	6,300	8,620	5,940	30,260
Women	1,230	6,960	7,170	4,340	8,540	4,780	33,020
Total	1,870	10,100	12,790	10,640	17,160	10,720	63,280

*Estimates for undiagnosed diabetes were not available for persons under age 20

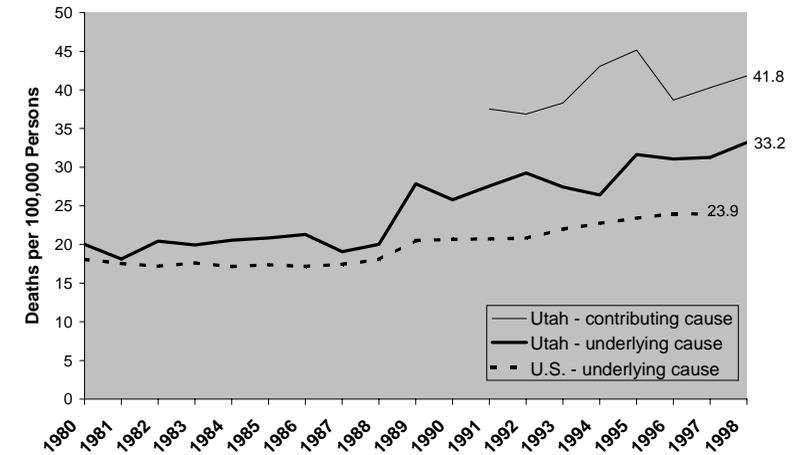
Diabetes Hospitalizations

Figure 2. Numbers of discharges, rates per 10,000 persons, mean length of stay, and mean charges for diabetes hospitalizations, Utah 1998.

	Number	Rate	LOS (days)	Charges (mean)
Diabetes as cause or contributing cause	17,588	83.7	5.1	\$ 11,729
Diabetes as primary reason for hospitalization	1,953	9.3	4.8	\$ 9,174
Specific reasons:				
Diabetic renal disease	1,796	8.6	6.4	\$ 15,018
Diabetic eye disease	1,125	5.4	5.4	\$ 13,865
Diabetes-related lower extremity amputation	333	1.6	10.3	\$ 16,823
Acute metabolic complications of diabetes	686	3.3	3.2	\$ 6,090
Diabetes and cardiovascular diseases	4,893	23.3	4.8	\$ 15,193

Diabetes Deaths

Figure 3. Deaths per 100,000 persons with diabetes as the underlying and contributing cause of death, Utah 1980-1998.



Note: Age-adjusted to U.S. 2000 population, ICD-9 codes 250
Sources: Population Data - Utah Governor's Office of Planning and Budget; Utah death data - UDOH, Bureau of Vital Records; U.S. data - CDC Wonder

- In 1998, 466 Utahns died of diabetes (as the underlying cause). An additional 582 died with diabetes as a contributing cause.
- Diabetes is one of only a few illnesses for which Utah's death rate is higher than the U.S. rate.
- Part of the increasing death rate for diabetes is due to improved coding on death certificates, but some of the increase is also likely to be attributable to increasing prevalence of diabetes.

November is American Diabetes Month.

“Diabetes is a disease about which we can do a great deal but only when those affected are informed and empowered to take the kind of control of this disease that is now possible.”

**Dr. James R. Gavin III, MD, Ph.D.
National Diabetes Education Program**

Many Utahns have diabetes but don't know it and therefore can't take advantage of new ways to prevent complications and improve their health and longevity. The new 1997 ADA criteria for diabetes allow use of a simple fasting plasma glucose rather than a glucose challenge. Appropriate screening for diabetes in populations at risk for the disease can detect people at a point in their disease when treatment and preventive services can be most effective.

Source of diabetes estimates

Estimates of the prevalence rates and numbers of people with diagnosed diabetes were obtained from the 1996 Utah Health Status Survey applied to 2000 population estimates. To estimate prevalence of undiagnosed diabetes, data on the relative frequencies of undiagnosed and diagnosed diabetes from the Third National Health and Nutrition Examination Survey (NHANES III) were used. NHANES III was a survey of the U.S. adults ≥ 20 years of age conducted in 1988-1994. This analysis of NHANES used the 1997 American Diabetes Association criterion for undiagnosed diabetes (fasting plasma glucose > 125 mg/dl). Our estimates for impaired glucose tolerance were based on NHANES data for a fasting plasma glucose 110-125 mg/dl or 2 hour post challenge glucose 140-199 mg/dl.

Harris MI, et. al. Prevalence of diabetes, impaired fasting glucose, and impaired glucose tolerance in U.S. adults. Diabetes Care 1998; 21:518-524.

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For additional information about this topic, contact the Office of Public Health Assessment, Utah Department of Health, P.O. Box 142101, Salt Lake City, Utah 84114-2101, (801) 538-6108, FAX (801) 536-0947 or (801) 538-9346, email: phdata@doh.state.ut.us; or the Diabetes Control Program, Utah Department of Health, P.O. Box 142107, Salt Lake City, Utah 84114-2107, (801) 538-6141, FAX (801) 538-9495, email: bralls@doh.state.ut.us; or visit the UDCCP website: www.utahdiabetes.org.

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