

Florida's Diabetes Crisis: Today and Future Trends

A recently released study² and the 2011 National Diabetes Fact Sheet⁶ from the Centers for Disease Control and Prevention (CDC) predict a dramatic increase in diabetes between 2010 and 2050. Using this new information from the CDC, the Institute for Alternative Futures diabetes model estimates that the number of Florida residents living with diabetes (diagnosed and undiagnosed) will increase 85% by 2025 from 2,271,300 to 4,204,200.¹ The resulting medical and societal cost of diabetes will be \$40.4 billion – a 95% increase from 2010.¹

In 2010, there were 2,271,300 people in Florida with diabetes.¹ Some 843,800 of them were undiagnosed¹ and possibly beginning to suffer from the common complications of diabetes, including eye, kidney, lower extremity, and heart damage.³ Another 4,903,400 people had pre-diabetes,¹ a condition in which the blood sugar level is higher than normal but not yet in the range for diabetes.⁴ If they do not take action, individuals with pre-diabetes can often progress to diabetes within 10 years.⁴

Diabetes is frequently associated with obesity, high blood pressure, high cholesterol, and depression.^{4,5} It can result in many debilitating complications⁶ and shorten life span by about 4 to 23 years depending on age, sex, and ethnicity.⁷ About 68% of deaths among seniors with diabetes are due to heart disease and 16% are due to a stroke related to their disease.⁶ In 2010, some 258,400 people in Florida were visually impaired, some even blind, because of diabetes.¹ Another 3,750 developed kidney failure, and 5,090 people underwent lower extremity amputations as a result of their diabetes.¹ On the whole, diabetes contributed to more than 20,380 deaths.¹ The total cost of diabetes in Florida, including medical expenses and lost productivity, was \$20.7 billion in 2010.¹

The risk of developing diabetes is much higher as one gets older, especially after the age of 45.⁸ There were 3,418,700 seniors²⁴ living in Florida in 2010 and approximately 77% of them had either diabetes or pre-diabetes.⁶ Of the 919,600 seniors living with diabetes in 2010, some 671,400 had diagnosed diabetes and another 248,200 had diabetes that had not yet been diagnosed¹ and was possibly beginning to cause organ damage.³ The 1,709,300 seniors in Florida with pre-diabetes¹ also were largely unaware of their condition⁹ and continue to have a significant risk of eventually developing diabetes.⁴

The American Diabetes Association recommends that testing for diabetes be considered for adults of any age who are overweight or obese and also have one or more risk factors for diabetes. For those without these risk factors, testing should begin at age 45. If test results are normal, repeat testing should occur at least every three years.¹⁰ The risk of diabetes increases as one gets older,⁸ so it is especially important for seniors to be tested for diabetes – a benefit that Medicare now covers.¹¹

We now understand more about delaying or even preventing the onset of diabetes as well as how to effectively treat it, resulting in a dramatic reduction of complications and premature death.^{12,13,14} In fact, many scientific studies have shown that relatively simple lifestyle changes, such as modest weight loss and increases in regular physical activity, can often prevent those most at risk, including those with pre-diabetes, from developing diabetes, or significantly delay the onset of the disease.^{14,15} If 50% of people with pre-diabetes successfully made these lifestyle changes, it could reduce the number of new cases of diabetes in Florida by about 20,900 a year.^{1,2,14} Between now and 2025 that would be a reduction of

over 343,300 people with diabetes with a cumulative savings of about \$21.9 billion.¹ Likewise, if 50% of the people with diagnosed diabetes received high quality medical care and complied with their doctors' recommendations, the number of lower extremity amputations could be reduced by over 1,550 per year and result in 29,200 fewer amputations by 2025.^{1,6} Similarly, almost 24,200 fewer people could develop end-stage renal failure by 2025.^{1,6} However, even with these interventions, there would still be 3,860,900 people living with diabetes in Florida.¹

Florida Diabetes Data and Forecasts¹	2000	2010	2015	2025
Population	16,198,500	19,251,700	21,204,100	25,912,500
Pre-diabetes	2,360,100	4,903,400	5,400,700	6,599,900
Diagnosed diabetes	714,900	1,427,500	1,924,900	3,064,100
Undiagnosed diabetes	306,400	843,800	947,900	1,140,100
Total with diabetes (diagnosed and undiagnosed)	1,021,300	2,271,300	2,872,800	4,204,200
Complications:				
Visual impairment	147,400	258,400	340,600	526,500
Renal failure	2,550	3,750	4,680	6,810
Leg amputations	4,800	5,090	5,835	8,090
Annual deaths attributable to diabetes	12,870	20,380	25,540	34,540
Total annual cost (2010 dollars)*	\$7.9 B	\$20.7 B	\$26.7 B	\$40.4 B
Annual medical costs	\$5.4 B	\$14.7 B	\$18.8 B	\$28.2 B
Annual nonmedical costs	\$2.5 B	\$6.0 B	\$7.9 B	\$12.2 B

* Costs in 2000 only for diagnosed diabetes, other years also include undiagnosed and pre-diabetes costs

2010 Florida Diabetes Statistics for Seniors (65 & older) and Minorities¹					
Subgroups	Seniors	African Americans	Hispanic Americans	Asian Americans	Native Americans
Population	3,418,700	2,926,300	3,908,100	423,500	57,800
Pre-diabetes	1,709,300	745,300	995,400	107,900	14,700
Diagnosed diabetes	671,400	272,600	305,700	28,900	5,400
Undiagnosed diabetes	248,200	161,100	180,700	17,100	3,200
Total diabetes (diagnosed and undiagnosed)	919,600	433,700	486,400	46,000	8,600
Complications:					
Visual impairment	136,600	48,800	55,000	5,260	960
Renal failure	1,720	1,110	950	57	22
Leg amputations	2,310	1,340	1,505	76	27
Annual deaths attributable to diabetes	9,310	6,200	5,000	250	105
Total annual cost	\$9.0 B	\$3.9 B	\$4.4 B	\$424 M	\$76 M
Annual medical costs	\$6.3 B	\$2.7 B	\$3.1 B	\$301 M	\$53 M
Annual nonmedical costs	\$2.7 B	\$1.2 B	\$1.3 B	\$123 M	\$23 M

Reducing the future burden of diabetes in Florida depends upon the promotion of targeted screening for asymptomatic adults to identify those with pre-diabetes and undiagnosed diabetes, improved access to quality medical care, and increased patient compliance with therapy.^{14,15,16} However, halting the “twin epidemics” of diabetes and obesity will also require fundamental change in all segments of society, including greater access to opportunities for physical activity in our schools, workplaces, and communities and a significant shift in the American diet away from sugar, salt, refined carbohydrates,

and saturated fats and toward more fruits and vegetables.¹⁵ In short, we all play an important role in conquering diabetes.

These forecasts are based on available national diabetes data, including population projections extrapolated to the state, and the CDC's 2011 National Diabetes Fact Sheet and latest diabetes prevalence projections to 2050. They assume a steady, but conservative, reduction in the number of people with complications due to better awareness of the risks of diabetes, earlier screening and intervention, and more effective therapies.

For endnote references and details on the Institute for Alternative Futures Diabetes 2025 Forecasting Model Methodology, visit www.altfutures.org/diabetes2025.

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