

TYPE 2 DIABETES REPORT™ FLORIDA ALLIANCE FOR HEALTHCARE VALUE

With a Focus on High-Risk Coexisting Conditions

8th Edition

FLORIDA ALLIANCE FOR HEALTHCARE VALUE TYPE 2 DIABETES REPORT™

INTRODUCTION

Sanofi U.S. (Sanofi), in conjunction with the Florida Alliance for Healthcare Value is pleased to present the eighth edition of the **Florida Alliance for Healthcare Value Type 2 Diabetes Report™** for 2022. This report provides an overview of pertinent demographic, laboratory, charge, and pharmacotherapy measures for Type 2 diabetes patients in key local markets in Florida, with a focus on how high-risk coexisting conditions can impact diabetes care. The report also includes national benchmarks that can help providers and employers identify opportunities to better serve the needs of their patients. Publicly available data on disease prevalence, income, food availability, and Internet access offer insight into possible gaps around social determinants of health.

Intended for use with payers, formulary committees, or other similar entities for purposes of population-based drug selection, coverage, and/or reimbursement decision making, pursuant to FD&C Act Section 502(a).

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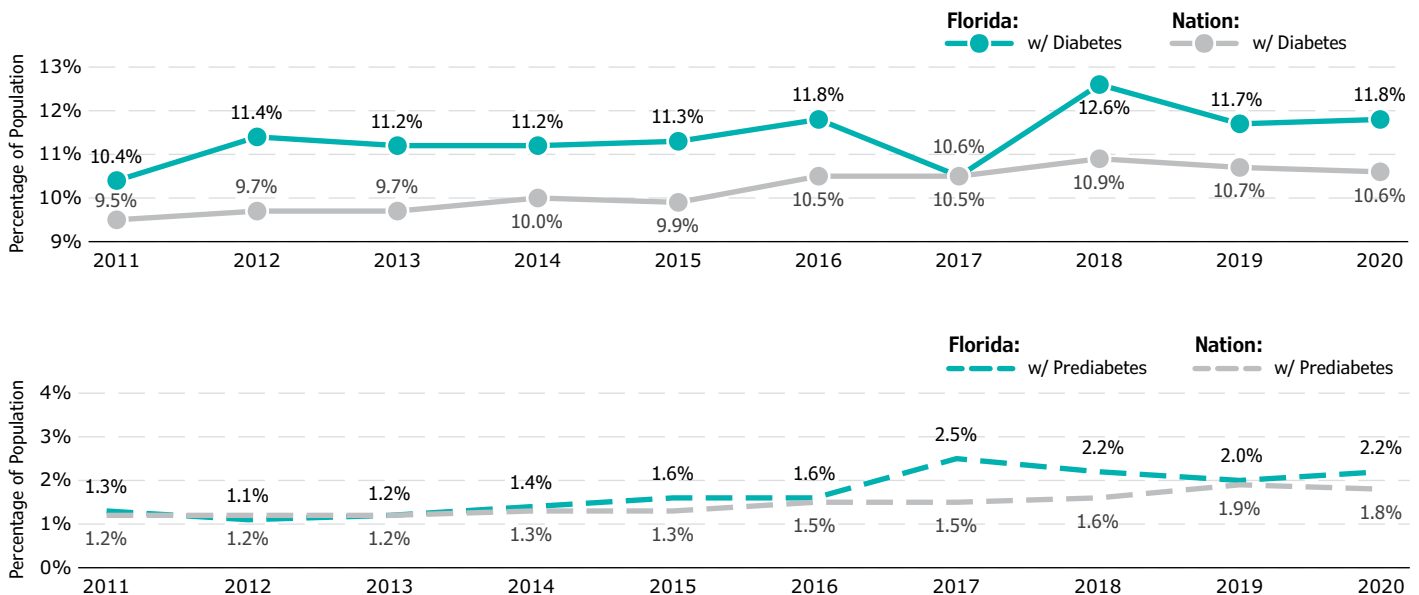
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The **Florida Alliance for Healthcare Value Type 2 Diabetes Report™** offers a broad overview of the state of diabetes—with a focus on how coexisting diagnoses such as cardiovascular (CV) disease, depression, hypoglycemia, neuropathy, and obesity impact care—in markets across Florida. The report provides state and national benchmarks for commercially insured patients (including comparison with their peers covered by Medicaid or Medicare) to identify potential gaps in care and reinforce positive trends. Current as of 2021 and spanning several years, the data in this report encompass roughly 13 million unique patients nationally with Type 2 diabetes—of these, more than 1 million received care in Florida.

This year’s report provides several observations to help providers and employers better meet the needs of employees. For example:

- The share of Florida’s adult population who reported being told by a doctor that they had diabetes or prediabetes increased from 2011 to 2020. Furthermore, prevalence of both conditions in Florida outpaced the respective national averages in 2020.
- Nearly 46% of commercially insured patients in Florida with Type 2 diabetes had an A1c above 7.0% on their latest test in 2021, exceeding the corresponding Medicare benchmark (42.6%).
- In each of the profiled Florida markets, the percentage of commercial Type 2 diabetes patients with CV disease, chronic kidney disease, depression, hypertension, nephropathy, neuropathy, obesity, or peripheral artery disease (PAD) was higher than the U.S. average in 2021.
- In 2021, co-occurring CV disease, depression, hypoglycemia, neuropathy, and obesity were each associated with elevated professional charges in the emergency department versus the overall average for commercially insured Florida patients with Type 2 diabetes.

Percentage of Adults Self-Reporting Diabetes or Prediabetes, 2011–2020



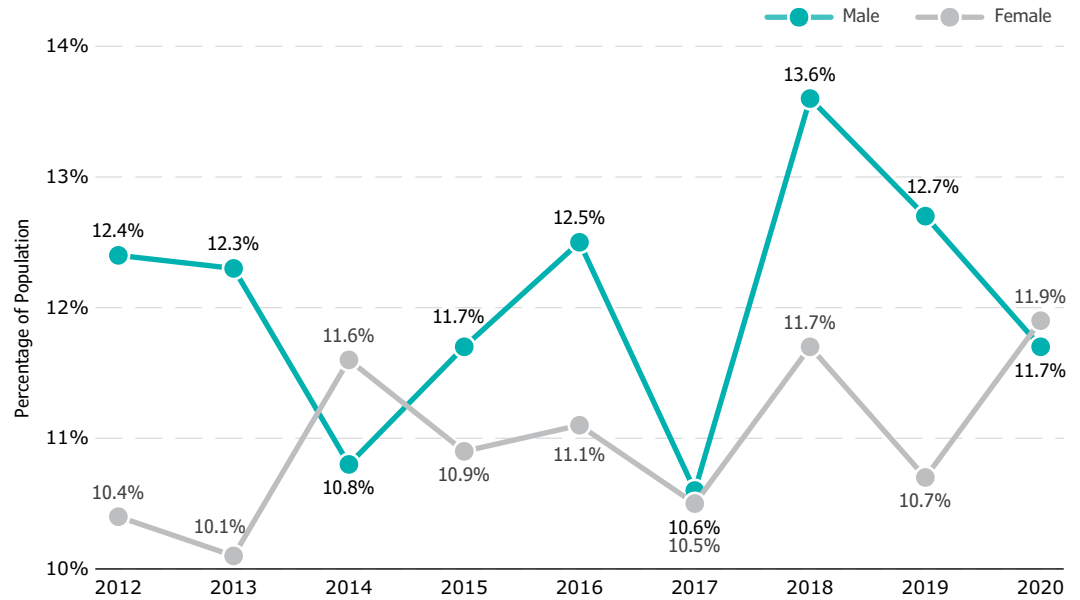
Data source: Centers for Disease Control and Prevention Behavioral Risk Factor Surveillance System © 2022

NOTE: On pages 3–4, Behavioral Risk Factor Surveillance System (BRFSS) data on diabetes and prediabetes are based on responses to the survey question, “Have you ever been told by a doctor that you have diabetes?”

RATES OF COEXISTING DXs ARE HIGH VS. U.S. FOR FL COMMERCIAL PATIENTS

In all six profiled Florida markets, the shares of commercially insured Type 2 diabetes patients with CV disease, chronic kidney disease, depression, hypertension, nephropathy, neuropathy, obesity, and peripheral artery disease (PAD) diagnoses (DXs) topped the corresponding national averages in 2021. That year, 13.0% of Florida commercial patients with Type 2 diabetes had an A1c level above 9.0%.

Percentage of Florida Population Self-Reporting Diabetes, by Gender, 2012–2020



Data source: Centers for Disease Control and Prevention Behavioral Risk Factor Surveillance System © 2022

Percentage of Type 2 Diabetes Patients, by Payer, 2020–2021

MARKET	Commercial Insurance		Medicare		Medicaid	
	2020	2021	2020	2021	2020	2021
Lakeland	37.9%	37.7%	52.7%	51.8%	9.4%	10.6%
Miami	42.7	43.5	48.3	47.5	9.0	9.0
Orlando	42.3	39.1	49.5	47.5	8.2	13.4
Palm Bay	39.0	39.0	56.4	54.7	4.6	6.4
Tampa	29.3	30.1	65.5	63.9	5.2	6.1
Florida	39.4	39.2	53.6	52.2	7.0	8.6
NATION	41.6%	41.5%	45.8%	45.6%	12.6%	13.0%

Distribution of Commercial Type 2 Diabetes Patients, by Age, 2020–2021

MARKET	0–17		18–35		36–64		65–79		80+	
	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021
Lakeland	0.2%	0.2%	2.2%	2.0%	47.9%	47.9%	38.2%	38.1%	11.4%	11.7%
Miami	0.2	0.2	1.8	1.8	43.0	43.5	39.8	39.3	15.2	15.2
Orlando	0.3	0.3	2.2	2.0	52.2	47.5	35.2	38.9	10.1	11.3
Palm Bay	0.3	0.2	1.6	1.5	46.0	43.7	39.1	40.1	13.1	14.5
Tampa	0.3	0.2	2.0	2.1	44.1	46.2	40.0	39.1	13.7	12.5
Florida	0.3	0.2	1.9	1.8	44.9	44.4	39.6	40.1	13.5	13.5
NATION	0.3%	0.3%	2.5%	2.5%	53.6%	52.0%	33.5%	34.8%	10.1%	10.4%

Data source: IQVIA © 2022

NOTE: Throughout this report, commercial insurance includes HMOs, PPOs, point-of-service plans, and exclusive provider organizations. Medicaid includes fee-for-service and managed care. The Lakeland market includes Winter Haven; the Miami market includes Fort Lauderdale and West Palm Beach; the Orlando market includes Kissimmee and Sanford; the Palm Bay market includes Melbourne and Titusville; the Tampa market includes St. Petersburg and Clearwater. An n/a indicates that data were not available.

PATIENT DEMOGRAPHICS

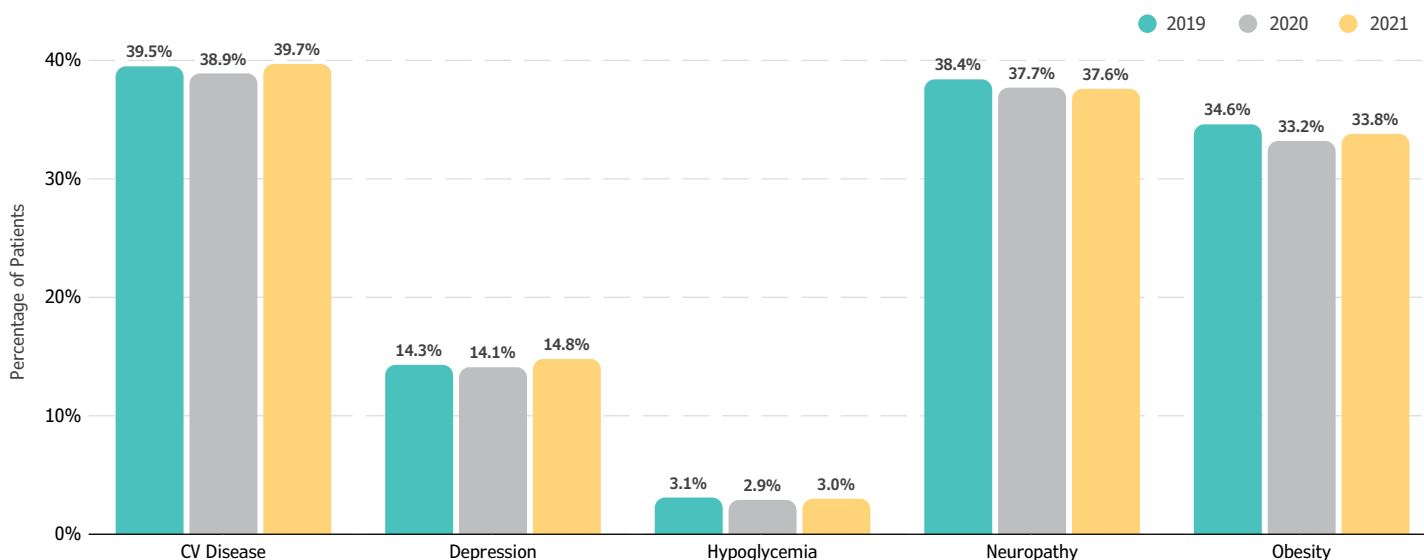
Percentage of Commercial Type 2 Diabetes Patients With Various Co-Occurring Conditions, 2019–2021¹

MARKET	COVID-19			Depression			Hyperlipidemia			Hypertension			Obesity		
	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021
Lakeland	n/a	6.3%	11.8%	17.6%	17.2%	18.1%	67.5%	66.6%	72.1%	80.6%	77.9%	80.1%	45.0%	44.4%	47.2%
Miami	n/a	7.3	11.3	14.0	13.1	13.8	66.9	65.7	66.7	81.9	79.5	80.2	32.3	29.6	31.0
Orlando	n/a	5.2	10.6	14.2	15.1	16.3	69.6	71.1	71.7	81.4	81.3	81.5	36.2	35.0	35.2
Palm Bay	n/a	4.3	10.1	12.7	12.6	13.7	65.6	66.4	66.2	80.3	79.2	79.4	33.9	33.7	33.6
Tampa	n/a	4.9	10.2	17.5	17.4	17.4	71.8	71.0	68.4	83.4	82.0	81.0	34.3	33.4	33.6
Florida	n/a	5.9	10.7	14.3	14.1	14.8	67.9	67.9	67.9	82.5	81.3	81.2	34.6	33.2	33.8
NATION	n/a	7.0%	10.5%	12.1%	12.1%	12.5%	66.8%	66.3%	66.4%	80.6%	79.6%	79.2%	29.8%	28.0%	28.7%

Percentage of Commercial Type 2 Diabetes Patients With Various Complications, 2021²

MARKET	CV Disease	CKD	Hypoglycemia	Nephropathy	Neuropathy	PAD	Retinopathy	Stroke
Lakeland	37.7%	29.1%	3.4%	42.1%	41.5%	25.9%	20.1%	4.5%
Miami	36.8	19.5	2.4	33.2	37.3	23.4	20.5	4.2
Orlando	39.5	26.8	3.4	38.3	40.0	28.9	15.4	4.8
Palm Bay	39.5	22.5	2.7	35.4	39.7	17.1	14.9	5.0
Tampa	41.4	22.9	3.0	37.1	38.2	24.8	15.6	3.9
Florida	39.7	23.7	3.0	36.7	37.6	23.6	17.2	4.5
NATION	34.6%	18.5%	2.9%	31.9%	32.9%	16.0%	16.4%	4.0%

Percentage of Commercial Type 2 Diabetes Patients With Various Co-Occurring Conditions, Florida, 2019–2021¹



Data source: IQVIA © 2022

¹ A co-occurring condition is a condition a patient with diabetes may also have, which may or may not be directly related to the diabetes. Co-occurring conditions were narrowed down to a subset of conditions, including, but not limited to, atherosclerotic cardiovascular disease (ASCVD); includes patients with acute coronary syndromes, myocardial infarction, stroke, and other cardiovascular conditions), chronic kidney disease (CKD), COVID-19, depression, gastrointestinal (GI) symptoms, congestive heart failure, hyperglycemia, hypoglycemia, obesity, peripheral artery disease (PAD), and stroke.

² A complication is defined as a patient condition caused by diabetes, but are not limited to, atherosclerotic cardiovascular disease (ASCVD), cardiovascular (CV) disease, chronic kidney disease (CKD), congestive heart failure, diabetic ketoacidosis (DKA), end-stage renal disease (ESRD), hyperglycemia, hypoglycemia, myocardial infarction (MI), nephropathy, neuropathy, peripheral artery disease (PAD), retinopathy, and stroke. ASCVD includes patients with acute coronary syndromes (ACS), MI, stroke, and other cardiovascular diseases.

UTILIZATION

Percentage of Commercial Type 2 Diabetes Patients Receiving Various Services, 2019–2021

MARKET	A1c Test ¹			Blood Glucose Test			Ophthalmologic Exam			Serum Cholesterol Test			Urine Microalbumin Test		
	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021
Lakeland	77.0%	75.8%	81.7%	82.5%	81.0%	81.7%	49.8%	51.0%	55.9%	68.7%	66.8%	67.1%	38.4%	36.1%	34.8%
Miami	76.1	73.9	76.0	80.7	79.0	80.2	51.6	46.4	46.7	66.1	63.3	65.4	34.8	31.5	31.7
Orlando	78.3	77.7	80.7	83.6	81.8	81.4	38.8	40.9	48.4	68.6	66.5	65.5	35.7	34.0	32.3
Palm Bay	77.4	76.1	78.9	83.6	83.7	84.2	46.3	42.4	47.8	68.5	68.1	67.5	34.1	35.4	34.4
Tampa	82.4	80.1	80.8	86.5	83.8	83.6	52.3	50.7	54.0	74.0	70.5	69.5	43.5	39.4	36.8
Florida	77.6	76.2	78.2	82.3	80.7	81.3	48.6	46.0	48.2	67.6	65.5	66.5	35.9	33.6	33.2
NATION	82.5%	81.4%	82.6%	86.3%	85.3%	86.0%	44.0%	40.1%	42.2%	72.3%	71.1%	72.3%	44.1%	42.5%	43.3%

Percentage of Commercial Type 2 Diabetes Patients, by Setting, 2019–2021

MARKET	Emergency Department			Inpatient			Office/Clinic			TeleHealth		
	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021
Lakeland	21.9%	19.1%	16.5%	14.9%	13.3%	11.4%	78.8%	79.8%	82.8%	0.4%	6.3%	8.6%
Miami	18.4	17.3	17.5	12.9	12.8	14.0	80.3	79.5	78.2	0.3	12.7	10.7
Orlando	25.2	21.3	20.0	14.1	13.0	12.2	80.3	81.2	80.5	0.7	12.3	9.6
Palm Bay	19.1	16.0	16.3	15.4	15.9	16.0	84.6	84.4	83.9	0.5	11.9	8.3
Tampa	16.8	15.4	16.3	13.5	13.3	13.4	76.9	76.6	73.8	0.4	10.9	8.1
Florida	19.7	17.5	17.6	14.8	14.7	15.0	80.7	80.5	79.1	0.4	11.0	8.8
NATION	19.8%	18.4%	18.4%	13.2%	12.9%	12.8%	80.2%	79.0%	78.4%	0.5%	16.1%	11.6%

Number of Encounters per Commercial Type 2 Diabetes Patient per Year, Overall vs. With Various Co-Occurring Conditions, 2021^{2,3}

MARKET	Overall	w/ CV Disease	w/ Depression	w/ Hypoglycemia	w/ Obesity
Lakeland	7.6	9.1	8.9	9.1	9.2
Miami	10.8	15.5	17.7	22.1	12.8
Orlando	8.3	10.6	10.8	12.6	9.3
Palm Bay	11.5	16.2	15.4	20.6	13.6
Tampa	8.3	10.6	10.9	14.6	10.2
Florida	10.3	14.3	14.6	19.2	12.1
NATION	11.3	17.3	17.6	21.5	14.2

Data source: IQVIA © 2022

¹ The A1c test measures the average blood glucose over the past 3 months. Figures reflect the percentage of diabetes patients who have had at least one A1c test in a given year.

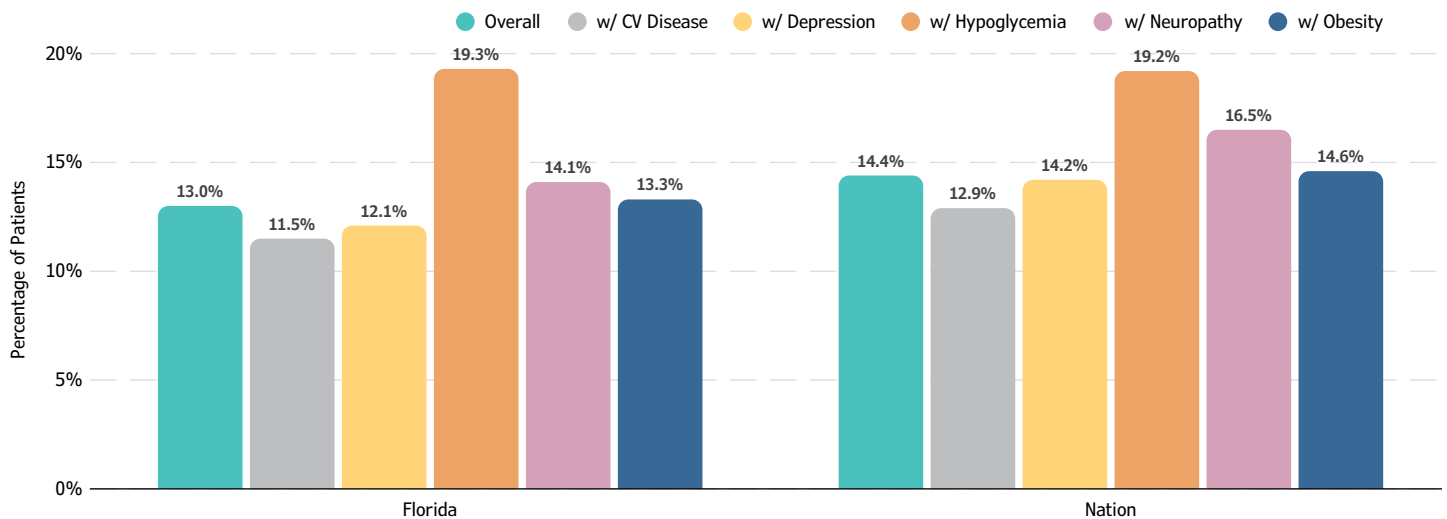
² Figures reflect the total number of provider encounters by Type 2 diabetes patients over the year shown within the given geography, divided by the total number of patients within that geography.

³ A co-occurring condition is a condition a patient with diabetes may also have, which may or may not be directly related to the diabetes. Co-occurring conditions were narrowed down to a subset of conditions, including, but not limited to, atherosclerotic cardiovascular disease (ASCVD); includes patients with acute coronary syndromes, myocardial infarction, stroke, and other cardiovascular conditions), chronic kidney disease (CKD), COVID-19, depression, gastrointestinal (GI) symptoms, congestive heart failure, hyperglycemia, hypoglycemia, obesity, peripheral artery disease (PAD), and stroke.

Distribution of Type 2 Diabetes Patients, by A1c Level Range and Payer, 2021¹

MARKET	≤7.0%			7.1–7.9%			8.0–9.0%			>9.0%		
	Comm. Ins.	Medicare	Medicaid	Comm. Ins.	Medicare	Medicaid	Comm. Ins.	Medicare	Medicaid	Comm. Ins.	Medicare	Medicaid
Lakeland	50.5%	55.1%	45.7%	19.6%	19.9%	19.7%	14.0%	13.4%	16.0%	15.9%	11.5%	18.7%
Miami	54.8	57.8	50.5	20.0	20.3	19.2	12.5	12.0	13.3	12.8	9.9	17.0
Orlando	51.5	54.1	48.6	20.9	21.4	21.4	14.1	13.3	15.1	13.6	11.2	14.9
Palm Bay	57.2	58.8	53.0	20.5	20.1	21.7	12.3	12.4	13.3	10.0	8.8	12.1
Tampa	53.8	57.9	49.5	20.7	20.7	18.5	12.7	12.0	13.1	12.8	9.4	18.9
Florida	54.2	57.4	51.0	20.2	20.5	19.5	12.6	12.1	13.4	13.0	10.0	16.1
NATION	51.9%	55.6%	47.3%	20.8%	21.2%	18.7%	12.9%	12.3%	13.5%	14.4%	10.9%	20.6%

Percentage of Commercial Type 2 Diabetes Patients, Overall vs. With Various Co-Occurring Conditions, With an A1c >9.0%, 2021^{1,2}



Percentage of Commercial Type 2 Diabetes Patients Receiving Long-Acting Basal Category 1 vs. Category 2, With an A1c Level ≤7.0% or >9.0%, 2019 and 2021¹

MARKET	≤7.0%				>9.0%			
	Category 1		Category 2		Category 1		Category 2	
	2019	2021	2019	2021	2019	2021	2019	2021
Lakeland	18.3%	18.0%	15.2%	17.6%	43.0%	45.9%	50.6%	46.3%
Miami	21.6	22.9	20.5	22.2	35.5	37.2	33.2	31.8
Orlando	24.7	21.6	24.5	23.4	31.2	41.3	30.9	33.9
Palm Bay	30.4	n/a	32.4	41.7	32.6	n/a	n/a	n/a
Tampa	25.6	24.5	25.1	22.5	30.0	34.6	28.9	31.9
Florida	23.7	23.2	23.7	24.2	33.5	36.4	31.8	32.1
NATION	25.1%	24.5%	23.7%	24.1%	32.1%	33.0%	31.6%	30.5%

Data source: IQVIA © 2022

¹ The A1c test measures the average blood glucose over the past 3 months. Figures reflect the percentage of diabetes patients who have had at least one A1c test in a given year.

² A co-occurring condition is a condition a patient with diabetes may also have, which may or may not be directly related to the diabetes. Co-occurring conditions were narrowed down to a subset of conditions, including, but not limited to, atherosclerotic cardiovascular disease (ASCVD); includes patients with acute coronary syndromes, myocardial infarction, stroke, and other cardiovascular conditions), chronic kidney disease (CKD), COVID-19, depression, gastrointestinal (GI) symptoms, congestive heart failure, hyperglycemia, hypoglycemia, obesity, peripheral artery disease (PAD), and stroke.

NOTE: "Category 1" refers to long-acting basal insulins approved through 2014 and follow-on long-acting insulins approved after 2014. "Category 2" refers to non-follow-on long-acting basal insulins approved in or after 2015.

CHARGES

Professional Charges per Commercial Type 2 Diabetes Patient per Year, by Setting, 2020–2021¹

MARKET	Emergency Department		Inpatient		Outpatient		Office/Clinic	
	2020	2021	2020	2021	2020	2021	2020	2021
Lakeland	\$3,031	\$3,172	\$3,490	\$3,874	\$1,709	\$1,981	\$1,796	\$1,594
Miami	2,763	2,850	4,878	4,962	2,023	2,183	2,147	2,430
Orlando	2,616	2,798	4,477	4,588	1,950	1,957	1,796	1,604
Palm Bay	2,149	2,015	3,826	3,829	1,513	1,560	2,996	2,904
Tampa	2,136	2,216	4,183	4,474	2,092	2,209	1,696	1,777
Florida	2,538	2,622	4,466	4,556	2,005	2,116	2,129	2,231
NATION	\$1,896	\$1,928	\$4,621	\$4,735	\$1,733	\$1,855	\$2,290	\$2,470

Professional Inpatient Charges per Type 2 Diabetes Patient per Year, by Payer, 2021¹

MARKET	Commercial Insurance	Medicare	Medicaid
Lakeland	\$3,874	\$5,638	\$5,538
Miami	4,962	7,025	5,431
Orlando	4,588	6,485	5,743
Palm Bay	3,829	5,624	5,494
Tampa	4,474	5,424	5,592
Florida	4,556	5,972	5,512
NATION	\$4,735	\$5,328	\$5,689

Professional Emergency Department Charges per Commercial Type 2 Diabetes Patient per Year, Overall vs. With Various Co-Occurring Conditions, 2021^{1,2}

	Overall	w/ CV Disease	w/ Depression	w/ Hypoglycemia	w/ Neuropathy	w/ Obesity
Lakeland	\$3,102	\$3,581	\$3,994	\$4,981	\$3,606	\$3,194
Miami	2,806	3,229	3,550	4,455	3,171	2,973
Orlando	2,707	3,040	3,208	4,115	2,979	2,827
Palm Bay	2,082	2,358	2,512	3,075	2,227	2,010
Tampa	2,176	2,439	2,750	2,994	2,468	2,504
Florida	2,580	2,891	3,123	3,816	2,892	2,747
NATION	\$1,912	\$2,223	\$2,314	\$2,838	\$2,198	\$2,026

Data source: IQVIA © 2022

¹ Professional charges are those generated by the providers delivering care to patients with diabetes in various settings.

² A co-occurring condition is a condition a patient with diabetes may also have, which may or may not be directly related to the diabetes. Co-occurring conditions were narrowed down to a subset of conditions, including, but not limited to, atherosclerotic cardiovascular disease (ASCVD); includes patients with acute coronary syndromes, myocardial infarction, stroke, and other cardiovascular conditions), chronic kidney disease (CKD), COVID-19, depression, gastrointestinal (GI) symptoms, congestive heart failure, hyperglycemia, hypoglycemia, obesity, peripheral artery disease (PAD), and stroke.

Percentage of Commercial Type 2 Diabetes Patients Receiving Various Insulin and Combination Therapies, 2020–2021

MARKET	Long-Acting Basal Category 1		Long-Acting Basal Category 2		Rapid-/Short-Acting Insulin		Fixed Ratio (Long-Acting Insulin/ GLP-1 RA)		Free Ratio (Variable Long-Acting Insulin + GLP-1 RA)	
	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021
Lakeland	17.8%	16.6%	7.8%	7.3%	13.9%	13.1%	0.7%	0.6%	8.3%	8.2%
Miami	15.0	14.4	6.8	6.2	12.1	11.7	1.3	1.0	6.6	6.9
Orlando	14.6	14.1	6.8	6.3	12.0	11.8	0.9	0.8	7.0	7.2
Palm Bay	10.8	10.0	10.9	10.7	14.0	13.7	1.0	0.9	7.3	8.3
Tampa	15.1	14.9	7.2	7.0	12.5	12.8	0.8	0.7	6.6	7.5
Florida	14.7	14.2	7.6	7.2	12.7	12.5	1.0	0.9	7.2	7.6
NATION	16.0%	15.5%	7.3%	7.1%	12.7%	12.6%	0.9%	0.8%	8.1%	8.9%

Percentage of Commercial Type 2 Diabetes Patients Receiving Long-Acting Basal Insulin Category 1 vs. Category 2, by Co-Occurring Condition, 2021¹

MARKET	CV Disease		Depression		Hypoglycemia		Neuropathy		Obesity	
	Cat. 1	Cat. 2	Cat. 1	Cat. 2	Cat. 1	Cat. 2	Cat. 1	Cat. 2	Cat. 1	Cat. 2
Lakeland	31.5%	30.1%	12.4%	9.5%	4.9%	3.6%	43.6%	46.5%	48.7%	53.6%
Miami	28.8	28.6	8.7	7.5	3.2	3.5	33.6	32.7	35.1	32.2
Orlando	28.9	30.1	8.7	8.7	5.1	5.3	37.2	34.3	31.0	32.0
Palm Bay	30.9	28.5	8.6	9.3	4.9	4.5	38.7	37.6	29.0	30.1
Tampa	33.2	30.5	12.3	10.4	3.7	3.0	35.4	35.9	34.8	34.1
Florida	31.3	28.7	10.0	8.9	3.8	3.9	35.2	34.0	34.5	34.7
NATION	27.2%	24.7%	10.6%	10.0%	4.1%	4.1%	33.1%	31.6%	29.1%	30.9%

Percentage of Commercial Type 2 Diabetes Patients Receiving Various Non-Insulin Antidiabetic Therapies, 2020–2021

MARKET	Biguanides		GLP-1 RAs		DPP-4 Inhibitors		Insulin Sensitizing Agents		SGLT-2 Inhibitors	
	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021
Lakeland	63.8%	62.6%	21.2%	26.0%	9.1%	8.6%	7.7%	8.3%	18.7%	20.6%
Miami	70.5	70.7	16.9	20.3	10.8	9.9	5.2	5.5	15.6	17.5
Orlando	64.3	65.7	20.1	23.5	9.8	8.5	8.1	8.2	17.1	18.5
Palm Bay	62.6	62.6	19.9	24.9	10.7	8.3	5.8	6.1	20.5	23.0
Tampa	65.8	65.1	18.6	23.2	10.2	9.1	6.7	6.8	17.1	19.7
Florida	65.8	65.6	19.3	23.0	10.3	9.3	6.6	6.9	16.5	18.4
NATION	69.1%	68.3%	21.4%	25.9%	10.4%	9.4%	6.7%	6.9%	17.7%	20.2%

Data source: IQVIA © 2022

¹ A co-occurring condition is a condition a patient with diabetes may also have, which may or may not be directly related to the diabetes. Co-occurring conditions were narrowed down to a subset of conditions, including, but not limited to, atherosclerotic cardiovascular disease (ASCVD); includes patients with acute coronary syndromes, myocardial infarction, stroke, and other cardiovascular conditions), chronic kidney disease (CKD), COVID-19, depression, gastrointestinal (GI) symptoms, congestive heart failure, hyperglycemia, hypoglycemia, peripheral artery disease (PAD), and stroke.

Biguanides: Decrease the production of glucose by the liver, decrease intestinal absorption of glucose, and increase the peripheral uptake and use of circulating glucose.

Dipeptidyl Peptidase 4 (DPP-4) Inhibitors: Inhibit DPP-4 enzymes and slow inactivation of incretin hormones, helping to regulate glucose homeostasis through increased insulin release and decreased glucagon levels.

Glucagon-Like Peptide-1 Receptor Agonists (GLP-1 RAs): Increase glucose-dependent insulin secretion and pancreatic beta-cell sensitivity, reduce glucagon production, slow rate of absorption of glucose in the digestive tract by slowing gastric emptying, and suppress appetite. "Fixed ratio (long-acting insulin/GLP-1 RA)" refers to the two therapies combined in a single product. "Free ratio (variable long-acting insulin + GLP-1 RA)" refers to the two therapies taken separately and concurrently.

Insulin Sensitizing Agents: Increase insulin sensitivity by improving response to insulin in liver, adipose tissue, and skeletal muscle, resulting in decreased production of glucose by the liver and increased peripheral uptake and use of circulating glucose.

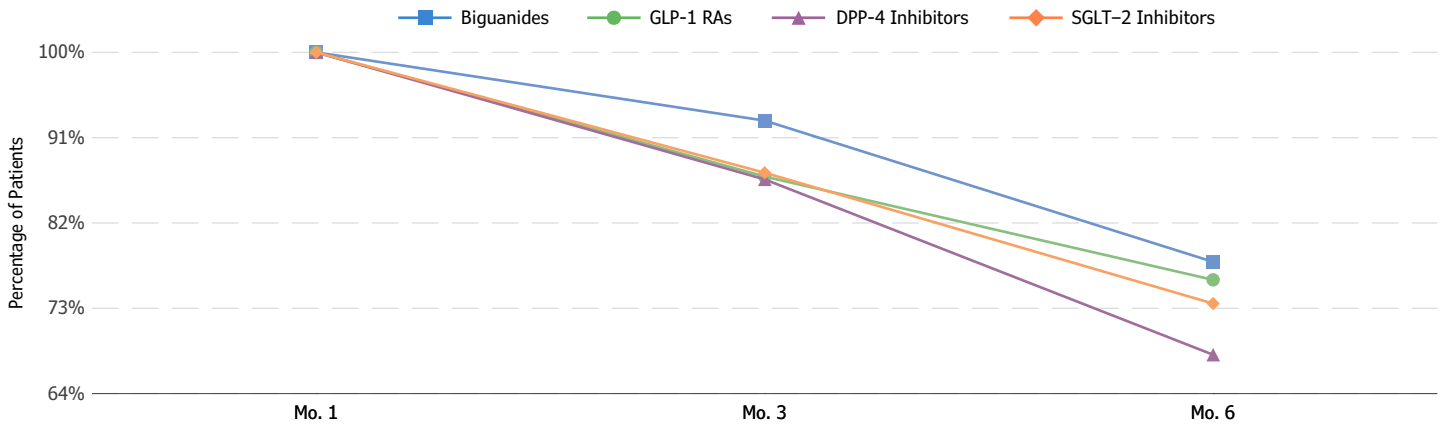
Long-Acting Basal Category 1/Category 2: Insulin replacement product with a long duration of action. "Category 1" refers to long-acting basal insulins approved through 2014 and follow-on long-acting insulins approved after 2014. "Category 2" refers to non-follow-on long-acting basal insulins approved in or after 2015.

Mixed Insulin: Insulin replacement product combining a short-acting and an intermediate-acting insulin product.

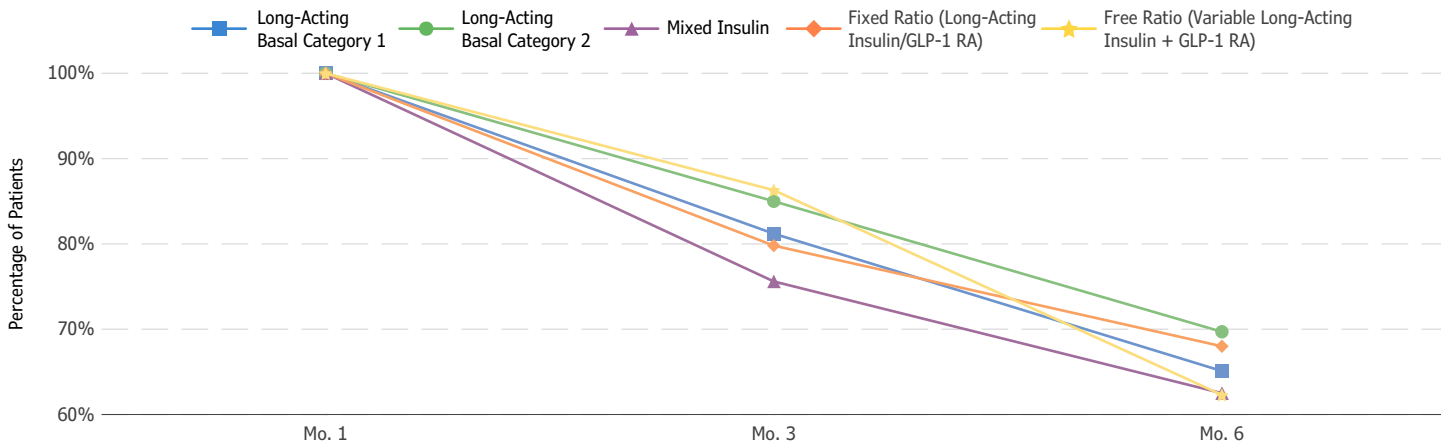
Rapid-/Short-Acting Insulin: Insulin replacement products including rapid-acting insulins that begin to work within 15 minutes after injection with duration of action of up to approximately four hours, and short-acting insulins that begin to work within 30 minutes after injection with duration of action of up to approximately six hours.

Sodium/Glucose Cotransporter 2 (SGLT-2) Inhibitors: Lower blood glucose concentration so that glucose is excreted instead of reabsorbed.

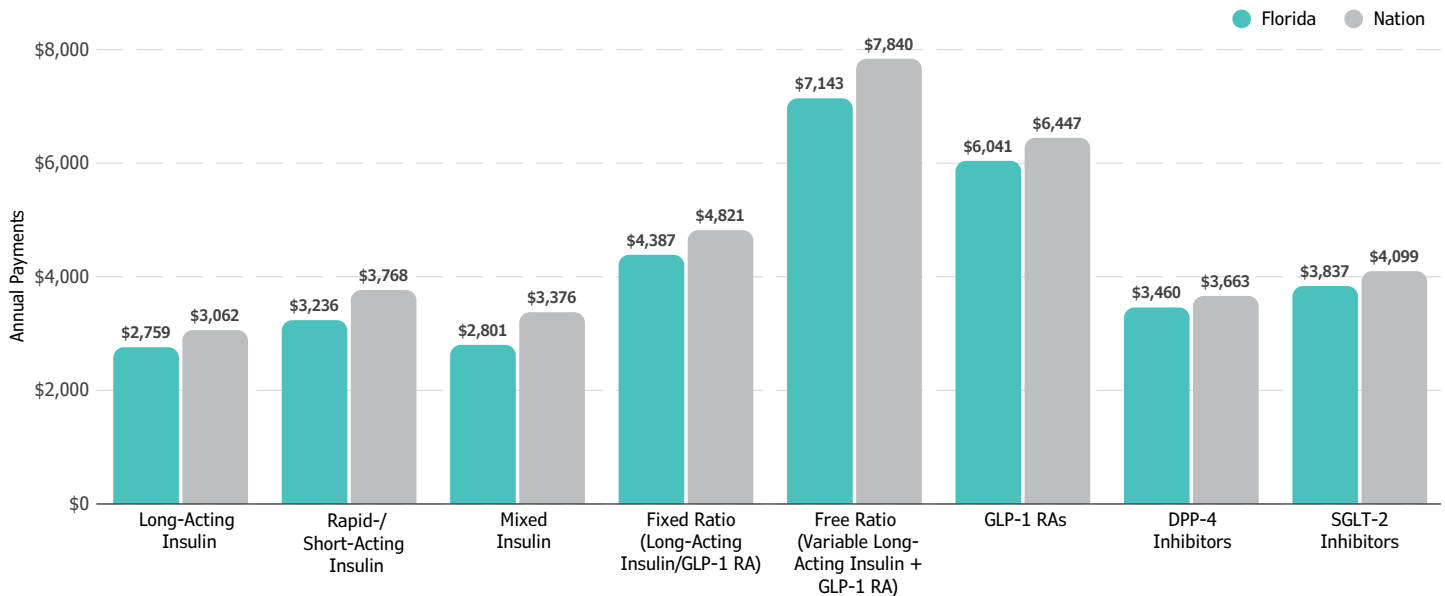
Persistency: Commercial Type 2 Diabetes Patients Receiving Various Non-Insulin Antidiabetic Therapies, Florida, 2021



Persistency: Commercial Type 2 Diabetes Patients Receiving Various Insulin and Combination Therapies, Florida, 2021



Annual Payments per Commercial Type 2 Diabetes Patient for Various Insulin and Non-Insulin Antidiabetic Therapies, 2021¹



Data source: IQVIA © 2022

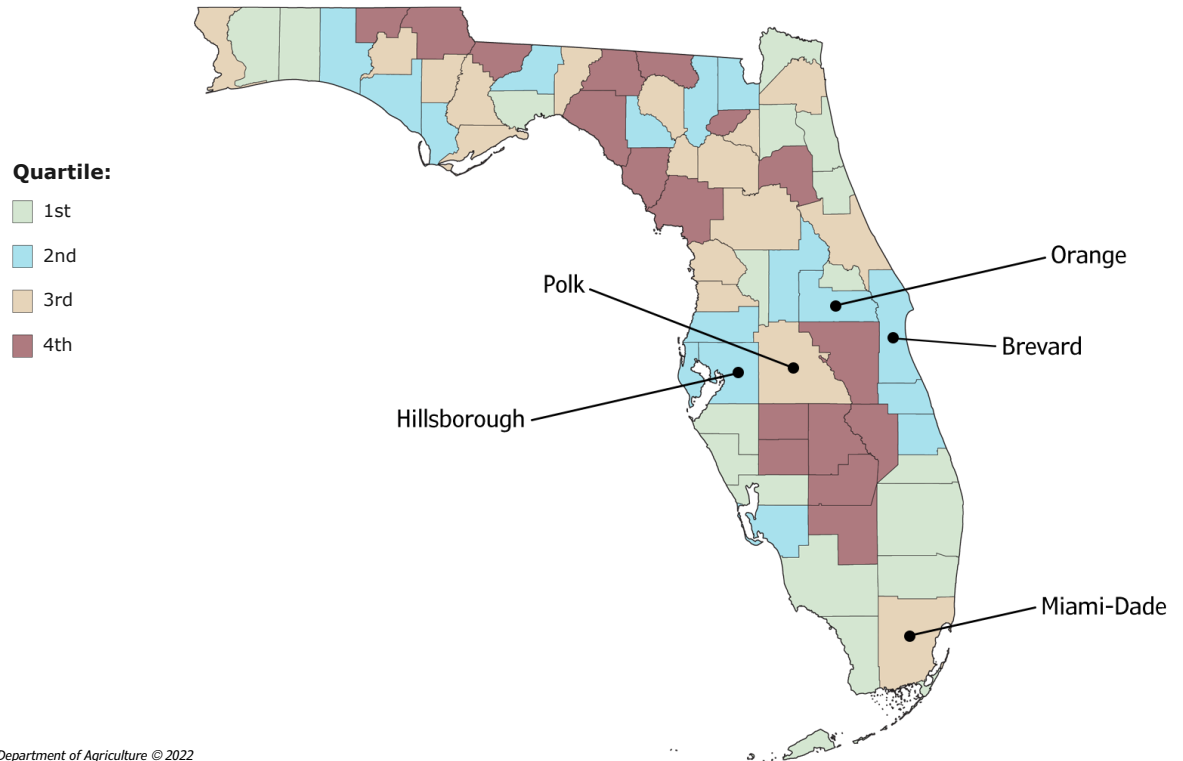
¹ Figures reflect the per-patient yearly payments for diabetes patients receiving a particular type of therapy. These are the actual amounts paid by the insurer and patient for such prescriptions. NOTE: "Persistency" measures whether patients maintain their prescribed therapy. It is calculated by identifying patients who filled a prescription for the reported drug class in the six months prior to the reported year, and then tracking prescription fills for those same patients in each of the months in the current reported year. If patients fill a prescription in a month, they are reported among the patients who have continued or restarted on therapy. Continued means that the patient has filled the drug group in each of the preceding months. Restarted means that the patient did not fill in one or more of the preceding months. Continuing and restarting patients are reported together. Persistency is tracked for patients who are new to therapy (those who have not filled the therapy in question in the six months prior to their first fill of the study period). "Category 1" refers to long-acting basal insulins approved through 2014 and follow-on long-acting insulins approved after 2014. "Category 2" refers to non-follow-on long-acting basal insulins approved in or after 2015. "Fixed ratio (long-acting insulin/GLP-1 RA)" refers to the two therapies combined in a single product. "Free ratio (variable long-acting insulin + GLP-1 RA)" refers to the two therapies taken separately and concurrently.

SOCIAL DETERMINANTS OF HEALTH

POLK COUNTY HAS HIGHER SDOH STRESS, PROVIDER/BROADBAND SCARCITY VS. OTHER PROFILED COUNTIES

- In 2019, Polk (home of Lakeland) and Miami-Dade Counties both demonstrated relatively high social determinants of health (SDOH) stress; each ranked in the third quartile for combined scores in income, Internet access, food assistance, and food desert measures.
- That same year, Polk County also showed a higher overlap of provider scarcity and fixed broadband scarcity versus counties aligned with the other profiled markets: Brevard (Palm Bay), Hillsborough (Tampa), Miami-Dade (Miami), and Orange (Orlando).

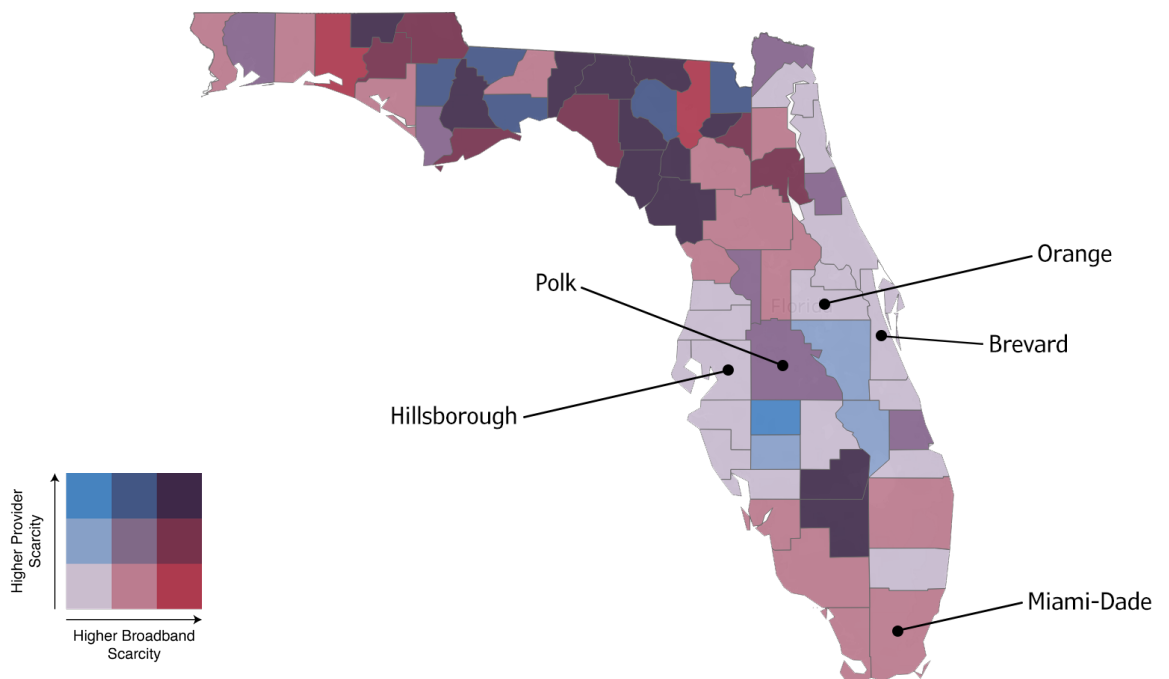
Combined SDOH Stress in Florida, by County, 2019



Data sources: U.S. Census Bureau and U.S. Department of Agriculture © 2022

NOTE: Combined score represents a linear, equally weighted combination of county rankings for four SDOH elements: 1) percentage of population living below the federal poverty level; 2) percentage of households without Internet access; 3) percentage of households receiving Supplemental Nutrition Assistance Program (SNAP) benefits; and 4) percentage of census tracts in a county classified as a food desert. A higher combined score—and higher quartile—represents higher levels of stress with respect to these SDOH elements.

Overlap of Provider Access (per 1,000 Population) and Fixed Broadband Internet Scarcity, by County, 2019



Data sources: Health Resources and Services Administration © 2020 and Federal Communications Commission © 2022

METHODOLOGY

Unless otherwise specified, the data for this report are from IQVIA, and are generated out of health care professional (837p) and institutional (837i) insurance claims, representing nearly 12.9 million unique patients nationally in 2021 with a diagnosis of Type 2 diabetes (ICD-10 codes E08, E09, E11, E13). Data from physicians of all specialties and from all hospital types are included. Substate markets represent core-based statistical areas (CBSAs).

IQVIA also gathers data on prescription activity from the National Council for Prescription Drug Programs (NCPDP). These data account for some 4 billion prescription claims annually, or more than 92% of the retail prescription universe and 72% of the traditional and specialty mail order universe. These prescription data represent the sampling of prescription activity from a variety of sources, including retail chains, mass merchandisers, and pharmacy benefit managers. Cash, Medicaid, and third-party transactions are tracked. Data arriving into IQVIA are put through a rigorous process to ensure that data elements match to valid references, such as product codes, ICD-10 (diagnosis) and CPT-4 (procedure) codes, and provider and facility data.

Proprietary lab data derive from one of the largest independent commercial lab companies in the U.S. Patient information is de-identified, matched, and linked with other patient data assets (e.g., medical claims data). The most common attributes used are the de-identified patient ID, observation date, diagnosis, test name, test code, and test result.

Claims undergo a careful de-duplication process to ensure that when multiple, voided, or adjusted claims are assigned to a patient encounter, they are applied to the database, but only for a single, unique patient.

Through its patient encryption methods, IQVIA creates a unique, random numerical identifier for every patient, and then strips away all patient-specific health information that is protected under the Health Insurance Portability and Accountability Act (HIPAA). The identifier allows IQVIA to track disease-specific diagnosis and procedure activity across the various settings where patient care is provided (hospital inpatient, hospital outpatient, emergency rooms, clinics, doctors' offices, and pharmacies), while protecting the privacy of each patient.