# Nevada Type 2 Diabetes Report 2008

Featuring Demographic, Charges, Utilization, and Pharmacotherapy Data

> Presented by **sanofi aventis** in conjunction with







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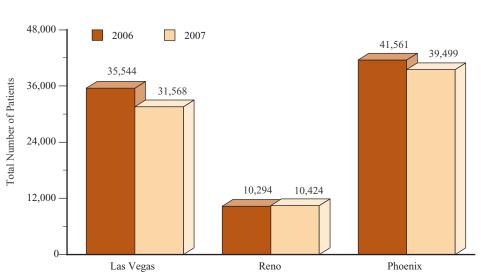
Introduction

The Nevada Health Care Coalition (NHCC) and Health Innovations are pleased to present the second edition of the Nevada Type 2 Diabetes Report for 2008, an overview of demographic, financial, utilization and pharmacotherapy measures for Type 2 diabetes patients in key local markets across the state of Nevada. The report also provides state and national benchmarks that can help providers and employers identify opportunities to serve the needs of their patients. Phoenix, Ariz, data are included in this report, as the geographical proximity of that metropolitan statistical area (MSA) to Las Vegas allows for useful comparisons. All data are drawn from the sanofi-aventis Managed Care Digest Series<sup>®</sup>.

The Nevada Type 2 Diabetes Report for 2008 helps NHCC and Health Innovations to fulfill their purpose of improving the total community's understanding and acceptance of cost-effective delivery and utilization of medical services through educational programs and seminars.

This second edition features a number of examples of the kinds of patient-level, disease-specific data on Type 2 diabetes that can be provided using the Managed Care Digest Series®. NHCC and Health Innovations chose Type 2 diabetes (high blood glucose levels caused by either a lack of insulin or the body's inability to use insulin efficiently) as the focus of this resource, as the Centers for Disease Control estimate that 90% to 95% of all Americans with diabetestranslating to 5% to 7% of the U.S. population—have the Type 2 variety.

The data in this report (covering 2006 through 2007) were gathered by Verispan LLC, Yardley, Pa., a recognized leader in the health care information industry. The data provide employers with independent, third-party information they can use to benchmark their own data on patient demographics, professional (provider) and facility (hospital) charges, service utilization and pharmacotherapy.



#### TOTAL NUMBER OF TYPE 2 DIABETES PATIENTS, BY MSA

Data source: Verispan LLC © 2008

	PERCENTAGE OF TYPE 2 DIABETES PATIENTS, BY AGE*										
	0–17 18–35 36–64 65–79 80+										
MARKET	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007	
Las Vegas Reno	0.3% 0.5	0.4% 0.4	4.0% 2.4	3.8% 2.5	54.5% 50.1	55.1% 47.4	32.6% 36.5	32.3% 38.6	8.5% 10.6	8.4% 11.1	
Phoenix	0.4	0.4	4.4	4.2	56.6	55.1	29.4	30.6	9.3	9.7	
Nevada	0.4	0.4	3.8	3.7	55.4	55.8	31.8	31.7	8.6	8.4	
NATION	0.4%	0.4%	3.6%	3.4%	50.6%	49.5%	33.3%	34.1%	12.1%	12.7%	

# NEVADA HAS LARGE SHARE OF WORKING AGE TYPE 2 PATIENTS

Of those patients diagnosed with Type 2 diabetes in the state of Nevada in 2007, 59.5% were between the ages of 18 and 64, up from 59.2% in 2006. This share was more than six percentage points higher than the national average (52.9%). By comparison, the share of Type 2 diabetes patients in the Phoenix MSA who were in this age category fell, to 59.3% from 61.0% the year before.

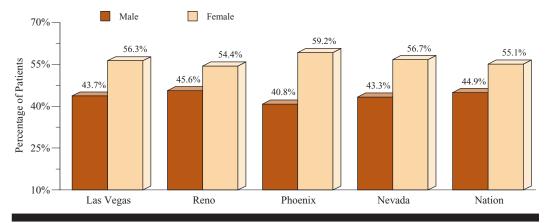
# LARGE SHARE OF LAS VEGAS PATIENTS IS DIAGNOSED BY PCPs

In 2007, 38.3% of Las Vegas Type 2 diabetes patients were diagnosed with the disease by a primary care physician (PCP), down from 40.3% in 2006, but still well above the national average of 26.3%. By comparison, just 16.8% of Type 2 diabetes patients in the Phoenix MSA were diagnosed by a PCP, down moderately from 19.9% the year before, and the lowest such percentage among the five markets profiled.

- \* On all pages, the percentages are representative of the universe of Type 2 diabetes patients on whom claims data have been collected in a given year.
- \*\* "Primary care" consists of both general and family practitioners.

			Location	of Patient's Ty	pe 2 Diabetes	Diagnosis		
	Primary	Care**	Internal	Medicine	Endocr	inology	Cardiology	
MARKET	2006	2007	2006	2007	2006	2007	2006	2007
Las Vegas	40.3%	38.3%	9.3%	11.5%	0.1%	0.2%	2.0%	1.5%
Reno	18.0	17.8	2.4	2.1	0.9	1.1	27.9	25.7
Phoenix	19.9	16.8	7.0	5.3	3.2	2.3	1.7	1.6
Nevada	34.7	32.5	5.3	6.2	0.3	0.5	7.3	6.9
NATION	28.2%	26.3%	10.4%	9.3%	1.3%	1.3%	7.5%	7.2%





Data source: Verispan LLC © 2008

NOTE: Throughout this report, the Reno MSA includes Sparks, Washoe and Storey counties.

PERCENTAGE OF TYPE 2 DIABETES PATIENTS, BY NUMBER OF COMPLICATIONS\*

# LESS THAN HALF OF RENO PATIENTS HAVE NO COMPLICATIONS

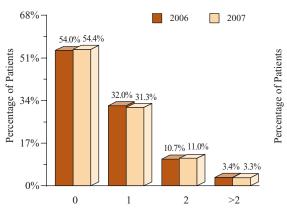
The share of Type 2 diabetes patients in the Reno MSA who had no diagnosed complications from the disease decreased to 49.2% in 2007 from 50.1% in 2006, the only market profiled to report less than half of its Type 2 diabetes patients as complicationfree. Nationally, the percentage of Type 2 diabetes patients with no complications was 62.5%, down from 64.2% the previous year, but still the highest share among the five markets profiled.

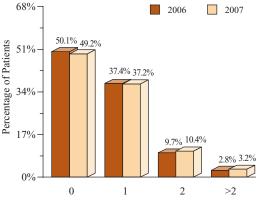
# SHARE OF TYPE 2 PATIENTS WITH 2+ COMPLICATIONS RISES

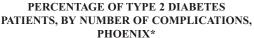
The share of Type 2 diabetes patients diagnosed with two or more complications from the disease rose, between 2006 and 2007, in each of the five markets profiled. In the Phoenix MSA, for example, this percentage increased to 14.4% from 12.6% the previous year, the highest such share by market. Meanwhile, the share of Type 2 diabetes patients nationally with two or more complications was just 9.3%, lowest of the listed markets, but still up from 8.4% the prior year.

				,				
	0		1		2		>2	
MARKET	2006	2007	2006	2007	2006	2007	2006	2007
Las Vegas	54.0%	54.4%	32.0%	31.3%	10.7%	11.0%	3.4%	3.3%
Reno	50.1	49.2	37.4	37.2	9.7	10.4	2.8	3.2
Phoenix	57.5	54.5	29.9	31.0	9.6	10.9	3.0	3.5
Nevada	54.0	54.2	32.4	32.0	10.3	10.6	3.3	3.3
NATION	64.2%	62.5%	27.5%	28.2%	6.7%	7.3%	1.7%	2.0%

PERCENTAGE OF TYPE 2 DIABETES PATIENTS, BY NUMBER OF COMPLICATIONS, LAS VEGAS\* PERCENTAGE OF TYPE 2 DIABETES PATIENTS, BY NUMBER OF COMPLICATIONS, RENO\*







29.9% 31.0%

1

2006

2007

3 0% 3.5%

>2

68%

51%

34%

17%

0%

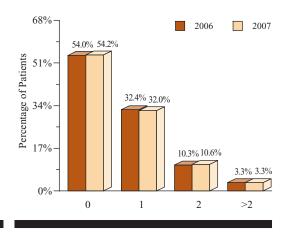
Percentage of Patients

57 5%

0

54.5%

PERCENTAGE OF TYPE 2 DIABETES ONS, PATIENTS, BY NUMBER OF COMPLICATIONS, NEVADA\*



\* A complication is defined as a patient condition caused by the Type 2 diabetes of the patient. These conditions are a direct result of having Type 2 diabetes. Complications of Type 2 diabetes include, but are not limited to, coronary artery disease, hypoglycemia, nephropathy, neuropathy and retinopathy.

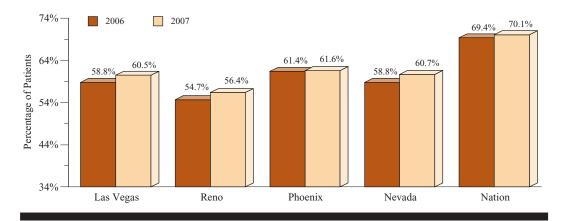
9.6% 10.9%

2

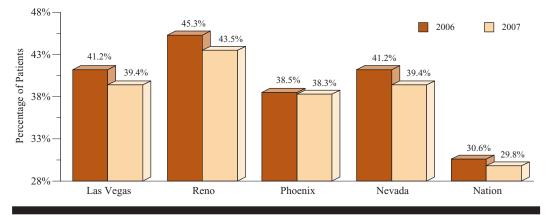
Data source: Verispan LLC © 2008

PERCENTAGE OF TYPE 2 DIABETES PATIENTS, BY NUMBER OF COMORBIDITIES*										
0		1		2		>2				
2006	2007	2006	2007	2006	2007	2006	2007			
34.5%	36.5%	24.3%	24.0%	30.8%	29.9%	10.4%	9.5%			
32.1	35.2	22.6	21.2	34.5	33.0	10.8	10.5			
37.2	37.1	24.2	24.5	29.2	28.6	9.3	9.7			
34.9	37.6	23.9	23.1	30.9	29.9	10.3	9.5			
45.4%	46.7%	24.0%	23.4%	25.0%	24.3%	5.6%	5.5%			
	2006 34.5% 32.1 37.2 34.9	0   2006 2007   34.5% 36.5%   32.1 35.2   37.2 37.1   34.9 37.6	0 1   2006 2007 2006   34.5% 36.5% 24.3%   32.1 35.2 22.6   37.2 37.1 24.2   34.9 37.6 23.9	0 1   2006 2007 2006 2007   34.5% 36.5% 24.3% 24.0%   32.1 35.2 22.6 21.2   37.2 37.1 24.2 24.5   34.9 37.6 23.9 23.1	0 1 2   2006 2007 2006 2007 2006   34.5% 36.5% 24.3% 24.0% 30.8%   32.1 35.2 22.6 21.2 34.5   37.2 37.1 24.2 24.5 29.2   34.9 37.6 23.9 23.1 30.9	0 1 2   2006 2007 2006 2007 2006 2007   34.5% 36.5% 24.3% 24.0% 30.8% 29.9%   32.1 35.2 22.6 21.2 34.5 33.0   37.2 37.1 24.2 24.5 29.2 28.6   34.9 37.6 23.9 23.1 30.9 29.9	0 1 2 >   2006 2007 2006 2007 2006 2007 2006 2007 2006 2007 2006 30.8% 29.9% 10.4% 30.8% 33.0 10.8 10.8   37.2 37.1 24.2 24.5 29.2 28.6 9.3 34.9 37.6 23.9 23.1 30.9 29.9 10.3			

#### PERCENTAGE OF TYPE 2 DIABETES PATIENTS WITH ONE COMORBIDITY OR FEWER\*



#### PERCENTAGE OF TYPE 2 DIABETES PATIENTS WITH TWO OR MORE COMORBIDITIES\*



Data source: Verispan LLC © 2008

\* A comorbidity is a condition a Type 2 diabetes patient may also have, which is not directly related to the diabetes. Comorbidities were narrowed down to a subset of conditions which are typically present in patients with Type 2 diabetes. Comorbidities of Type 2 diabetes include, but are not limited to, congestive heart failure, coronary artery disease, dysmetabolic syndrome, hyperlipidemia, hypertension and obesity.

# SHARE OF NEVADA **PATIENTS WITHOUT COMORBIDITIES RISES**

Among patients with Type 2 diabetes in the state of Nevada in 2007, 37.6% were without a diagnosed comorbidity, up moderately from 34.9% in 2006. In spite of this increase, the share of comorbidity-free Type 2 diabetes patients in Nevada was well below the national average of 46.7% in 2007.

# **SHARE OF RENO** PATIENTS WITH ONE **COMORBIDITY IS LOW**

Just 21.2% of patients diagnosed with Type 2 diabetes in the Reno MSA had exactly one comorbidity in 2007, down slightly from 22.6% in 2006, and the lowest percentage among the five markets profiled. In contrast, roughly onequarter (24.0%) of Type 2 diabetes patients in the Las Vegas MSA had exactly one comorbidity in 2007.

# SHARE OF LAS VEGAS PATIENTS WITH 2+ **COMORBIDITIES FALLS**

Of all patients with Type 2 diabetes in the Las Vegas MSA in 2007, 9.5% were diagnosed with two or more comorbidities, down from 10.4% in 2006. By comparison, this share rose for Type 2 diabetes patients in the Phoenix MSA during this period, to 9.7% from 9.3% the previous year.

# AVERAGE INPATIENT HOSPITAL CHARGES RISE ACROSS NEVADA

Average hospital inpatient charges generated by Type 2 diabetes patients in Nevada increased notably in 2007, to \$76,579 from \$60,973 in 2006. Average hospital inpatient charges for patients diagnosed with Type 2 diabetes in the Las Vegas MSA were \$89,195, up from \$64,694 the year before, markedly higher than the national average of \$49,870.

# TYPE 2 PATIENTS IN RENO HAVE LOW OP HOSPITAL CHARGES

In 2007, Type 2 diabetes patients in Reno had hospital outpatient charges of \$4,263, up moderately from \$3,993 in 2006, but still the lowest such average among the five markets profiled. In contrast, Type 2 diabetes patients treated in Las Vegas generated average hospital outpatient charges of \$8,831 in 2007, more than double the average in the Reno MSA.

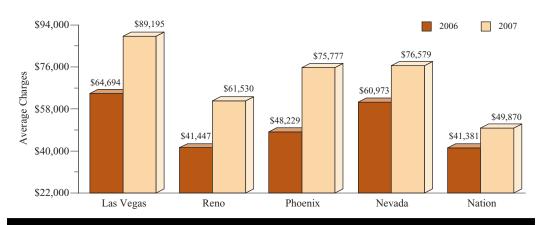
# ER CHARGES JUMP FOR PHOENIX TYPE 2 DIABETES PATIENTS

After remaining virtually unchanged between 2005 (\$1,927) and 2006 (\$1,924), average hospital emergency room (ER) charges for Type 2 diabetes patients in the Phoenix MSA increased substantially in 2007, to \$2,819, the highest ER charge average by market.

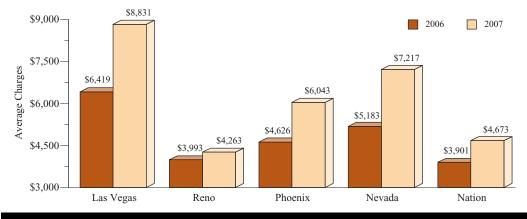
#### AVERAGE HOSPITAL CHARGES PER YEAR FOR TYPE 2 DIABETES PATIENTS\*

	Emerge	ency Room	Hospital	Inpatient	Hospital Outpatient		
MARKET	2006	2007	2006	2007	2006	2007	
Las Vegas	\$1,534	\$2,085	\$64,694	\$89,195	\$6,419	\$8,831	
Reno	988	1,024	41,447	61,530	3,993	4,263	
Phoenix	1,924	2,819	48,229	75,777	4,626	6,043	
Nevada	1,388	1,903	60,973	76,579	5,183	7,217	
NATION	\$1,299	\$1,651	\$41,381	\$49,870	\$3,901	\$4,673	

#### AVERAGE HOSPITAL INPATIENT CHARGES PER YEAR FOR TYPE 2 DIABETES PATIENTS\*



#### AVERAGE HOSPITAL OUTPATIENT CHARGES PER YEAR FOR TYPE 2 DIABETES PATIENTS\*



<sup>1</sup> Data reflect the charges generated for Type 2 diabetes patients by the facilities that delivered care. The data also reflect the average amounts charged in Type 2 diabetes patient claims, not the amount the claims paid. Data source: Verispan LLC © 2008

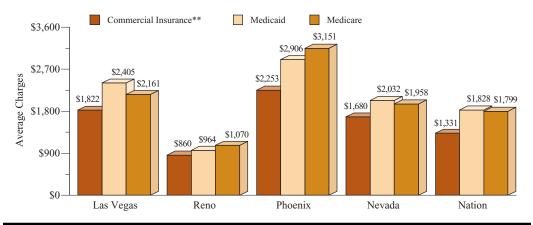
# AVERAGE HOSPITAL INPATIENT CHARGES PER YEAR FOR TYPE 2 DIABETES PATIENTS, BY PAYER\*

	Commercial	Insurance**	Med	licaid	Medicare		
MARKET	2006	2007	2006	2007	2006	2007	
Las Vegas	\$52,843	\$71,446	\$69,776	\$108,429	\$76,373	\$94,288	
Reno	33,148	60,738	—	68,023	45,354	58,187	
Phoenix	46,972	63,395	—	58,044	45,606	70,806	
Nevada	50,643	64,938	66,446	97,196	68,439	76,939	
NATION	\$36,468	\$43,606	\$37,917 \$47,039		\$41,689	\$48,839	

#### AVERAGE HOSPITAL OUTPATIENT CHARGES PER YEAR FOR TYPE 2 DIABETES PATIENTS, BY PAYER\*

	Commercial	Insurance**	Med	icaid	Medicare		
MARKET	2006	2007	2006	2007	2006	2007	
Las Vegas	\$6,129	\$8,643	\$6,084	\$7,317	\$6,450	\$8,746	
Reno	3,075	3,813	4,054	5,213	4,675	3,890	
Phoenix	4,652	5,495	2,528	4,887	4,406	6,640	
Nevada	4,971	7,087	5,328	7,193	5,134	6,791	
NATION	\$3,277	\$4,030	\$3,735 \$4,317		\$4,347	\$5,103	

#### AVERAGE HOSPITAL EMERGENCY ROOM CHARGES PER YEAR FOR TYPE 2 DIABETES PATIENTS, BY PAYER, 2007\*



Data source: Verispan LLC © 2008

\* Figures reflect the charges generated for Type 2 diabetes patients by the facilities that delivered care. The data also reflect the average amounts charged in Type 2 diabetes patient claims, not the amount the claims paid.

\*\* Includes Blue Cross/Blue Shield, HMOs, PPOs, point-of-service plans and exclusive provider organizations.

# NEVADA HOSPITAL IP CHARGES EXCEED THE NATIONAL MARK

In 2007, average hospital inpatient charges for care delivered to Type 2 diabetes patients were higher in Nevada than the nation regardless of payer type. For example, Type 2 diabetes patients in Nevada with Medicare coverage generated average hospital inpatient charges of \$76,939, notably higher than the national average of \$48,839.

# OP CHARGE AVERAGE FALLS FOR MEDICARE PATIENTS IN RENO

Average hospital outpatient charges for Type 2 diabetes in the Reno MSA fell in 2007, to \$3,890 from \$4,675 in 2006. Reno was the only local market profiled with average Medicare outpatient charges below the national Medicare average (\$5,103).

# ER CHARGES ARE LOW FOR COMMERCIAL INSURANCE PATIENTS

INSURANCE PATIENTS In 2007, Type 2 diabetes patients with commercial insurance coverage reported the lowest average ER charges, by payer, for all five markets profiled. For example, average ER charges were \$1,822 for Type 2 diabetes patients with commercial insurance coverage in Las Vegas, notably lower than both the Medicare (\$2,161) and Medicaid (\$2,405) averages.

# AVERAGE INPATIENT PROVIDER CHARGES DECLINE IN RENO

Between 2006 and 2007, average hospital inpatient professional charges for Type 2 diabetes patients in Reno fell, to \$3,950 from \$4,279. Despite this decline, Reno had the highest such charges among the four local markets profiled.

# NEVADA ASC PROVIDER CHARGES OUTPACE NATIONAL AVERAGE

Average professional ambulatory surgery center (ASC) charges for care delivered to Type 2 diabetes patients in Nevada were \$7,278 in 2007, more than double the national average for such charges (\$3,055). Meanwhile, ASC provider charges for Type 2 diabetes patients in Phoenix were just \$1,720, the lowest average among the markets listed by a wide margin.

# AVERAGE HOSPITAL OUTPATIENT CHARGES ARE LOW IN PHOENIX

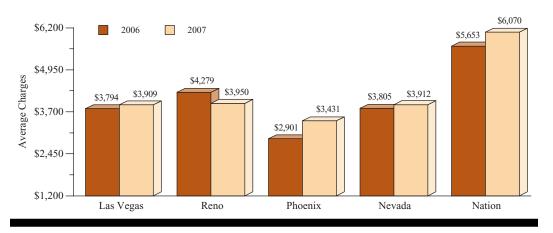
In 2007, average professional hospital outpatient charges generated by Type 2 diabetes patients in Phoenix were \$911, lowest among the five markets profiled and the only average below \$1,000. In contrast, outpatient professional charges in the Reno MSA were \$3,306, up significantly from \$2,783 the year before.

\* Professional charges are those generated by the providers delivering care to Type 2 diabetes patients in various settings.

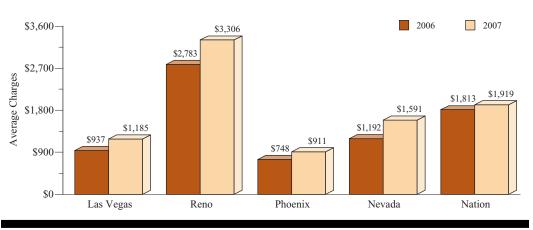
# AVERAGE PROFESSIONAL CHARGES PER YEAR FOR TYPE 2 DIABETES PATIENTS\*

	Ambulatory Emergency Surgery Center Room		Hospital Inpatient		Hospital Outpatient		Office			
MARKET	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007
Las Vegas	\$5,090	\$5,340	\$482	\$619	\$3,794	\$3,909	\$937	\$1,185	\$1,809	\$1,856
Reno	2,211	5,546	566	613	4,279	3,950	2,783	3,306	1,227	1,405
Phoenix	1,694	1,720	550	320	2,901	3,431	748	911	765	936
Nevada	4,103	7,278	492	616	3,805	3,912	1,192	1,591	1,642	1,762
NATION	\$2,791	\$3,055	\$575	\$647	\$5,653	\$6,070	\$1,813	\$1,919	\$2,629	\$2,818

#### AVERAGE PROFESSIONAL INPATIENT CHARGES PER YEAR FOR TYPE 2 DIABETES PATIENTS\*



#### AVERAGE PROFESSIONAL OUTPATIENT CHARGES PER YEAR FOR TYPE 2 DIABETES PATIENTS\*



Data source: Verispan LLC © 2008

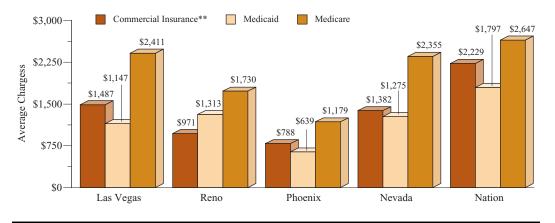
#### AVERAGE PROFESSIONAL INPATIENT CHARGES PER YEAR FOR TYPE 2 DIABETES PATIENTS, BY PAYER\*

	Commercial	Insurance**	Med	icaid	Medicare		
MARKET	2006	2007	2006	2007	2006	2007	
Las Vegas Reno	\$3,188 3,615	\$3,319 3,490	\$3,411 5,974	\$3,151 5,829	\$4,663 4,098	\$4,111 3,655	
Phoenix	2,400	2,841	2,228	3,266	3,282	4,056	
Nevada	3,144	3,267	4,094	3,796	4,559	4,116	
NATION	\$4,767	\$4,916	\$4,553 \$4,963		\$5,380	\$5,823	

#### AVERAGE PROFESSIONAL OUTPATIENT CHARGES PER YEAR FOR TYPE 2 DIABETES PATIENTS, BY PAYER\*

	Commercial	Insurance**	Med	icaid	Medicare		
MARKET	2006	2007	2006	2007	2006	2007	
Las Vegas	\$957	\$1,117	\$1,123	\$911	\$878	\$1,238	
Reno	2,571	3,014	1,249	1,254	2,913	3,448	
Phoenix	667	866	1,014	673	1,051	1,335	
Nevada	992	1,227	1,152	879	1,658	2,301	
NATION	\$1,768	\$1,797	\$1,297	\$1,388	\$1,541	\$1,676	

#### AVERAGE PROFESSIONAL OFFICE/CLINIC CHARGES PER YEAR FOR TYPE 2 DIABETES PATIENTS, BY PAYER, 2007\*



Data source: Verispan LLC © 2008

\* Professional charges are those generated by the providers delivering care to Type 2 diabetes patients in various settings.

\*\* Includes Blue Cross/Blue Shield, HMOs, PPOs, point-of-service plans and exclusive provider organizations.

# HOSPITAL INPATIENT CHARGES DECREASE FOR RENO PATIENTS

Average professional hospital inpatient charges for care delivered to Type 2 diabetes patients in Reno fell between 2006 and 2007, regardless of payer type category. For example, Type 2 diabetes patients in the Reno MSA with Medicare coverage had average professional inpatient charges of \$3,655, down from \$4,098 in 2006.

# LAS VEGAS MEDICARE PATIENTS GENERATE LOWEST OP CHARGES

Type 2 diabetes patients in Las Vegas with Medicare coverage had average professional outpatient charges of \$1,238 in 2007, lowest of the five markets profiled. Meanwhile, Type 2 diabetes patients in Reno with Medicare coverage had professional outpatient charges of \$3,448 in 2007.

# MEDICAID OFFICE CHARGES ARE LOW IN PHOENIX MSA

In 2007, average professional office charges for Type 2 diabetes patients in Phoenix with Medicaid coverage were \$639, lowest among the local markets profiled. In contrast, Type 2 diabetes patients in the Reno MSA with Medicaid coverage reported average professional office charges of \$1,313, highest of the four local markets listed.



# LARGER SHARE OF **RENO TYPE 2 PATIENTS RECEIVES A1C TESTS**

The percentage of Type 2 diabetes patients in the Reno MSA receiving an A1c test increased moderately in 2007, to 72.3% from 70.9% in 2006. In spite of this growth, Type 2 diabetes patients in Reno were least likely, by market, to receive such tests. Meanwhile, the share of Type 2 diabetes patients statewide who took an A1c test was 74.3%, unchanged from the previous year.

NATION

73.9%

73.8%

# SHARE OF NEVADA PATIENTS WITH EYE **EXAMS TRAILS NATION**

In 2007, the share of Type 2 diabetes patients in the state of Nevada (63.9%) who were administered at least one ophthalmologic examination was substantially lower than the national average (69.2%). Of the three MSAs profiled, Type 2 diabetes patients in Reno were most likely to receive an eye exam, at 70.7%, down fractionally from 70.8% the year before. By comparison, more than three-quarters (78.4%) of patients diagnosed with Type 2 diabetes in the state of Vermont took ophthalmologic exams in 2007, the highest such mark by state.

- A1c tests measure the amount of glucose present in the blood during the past 3–4 months. Figures reflect the percentage of type 2 diabetes patients who have had at least one A1c test in a given year.
- Includes Blue Cross/Blue Shield, HMOs, PPOs, point-of-service plans and exclusive provider organizations.

#### PERCENTAGE OF TYPE 2 DIABETES PATIENTS, BY SERVICE A1c Test\* Blood Glucose Test Serum Cholesterol Test Ophthalmologic Exam Urine Glucose Test 2006 2007 2006 2007 2006 2007 2006 2007 2006 2007 MARKET Las Vegas 75.8% 75.5% 87.6% 87.4% 85.0% 84.7% 62.9% 63.2% 84.6% 85.1% 70.9 72.3 81.2 82.7 70.8 70.7 Reno 83.6 82.6 82.1 83.1 Phoenix 73.0 72.5 88.0 87.7 85.5 85.1 69.3 69.5 85.7 86.5 74.3 85.2 63.8 83.9 Nevada 74.3 85.7 83.0 83.0 63.9 83.0

#### PERCENTAGE OF TYPE 2 DIABETES PATIENTS, BY SERVICE: STATE LEADERS, 2007

83.7%

83.8%

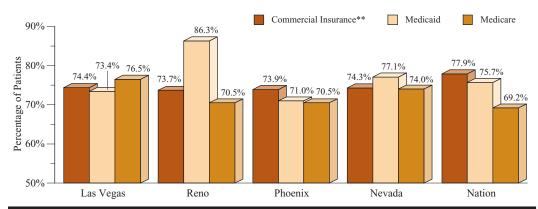
68.8%

69.2%

86.5%

86.6%

State Leaders	A1c Test*	Blood Glucose Test	Serum Cholesterol Test	Ophthalmologic Exam	Urine Glucose Test
#1	<b>SD:</b> 88.1%	CT: 93.1%	DE: 91.9%	VT: 78.4%	CT: 94.9%
#2	<b>MN:</b> 85.9%	NH.: 92.9%	NH: 90.2%	SD: 77.2%	DE & NH: 92.9%
#3	<b>KS:</b> 84.5%	NY & DE: 92.2%	WI: 89.5%	NH: 77.0%	MA: 90.6%



PERCENTAGE OF TYPE 2 DIABETES PATIENTS RECEIVING A1C TESTS, BY PAYER, 2007\*

#### PERCENTAGE OF TYPE 2 DIABETES PATIENTS, BY A1C LEVEL RANGE\*

	≤7.0	≤7.0%		7.1–7.9%		8.0-9.0%		>9.0%	
MARKET	2006	2007	2006	2007	2006	2007	2006	2007	
Las Vegas Reno	62.6% 61.4	63.3% 64.4	16.0% 17.5	15.4% 15.8	9.5% 10.1	9.5% 9.1	12.0% 11.0	11.8% 10.8	
Phoenix	63.8	63.7	15.9	15.7	9.3	9.1	11.0	11.5	
Nevada	61.8	63.2	16.6	15.7	9.7	9.4	11.9	11.7	
NATION	58.3%	61.1%	18.6%	17.4%	10.9%	9.8%	12.2%	11.7%	
State Leaders	2007: ≤7.0%		2007: 7.1–7.9%		2007: 8.0–9.0%		2007: >9.0%		
#1 #2 #3	ND: 69.3% SD: 68.9 HI & WY: 68.7		WV & MD: 16.6% NJ: 16.5 DE: 16.4		MD: 9.8% DE: 9.7 WV: 9.6		RI, VT, NY: 12.0% TX: 11.8 NV: 11.7		

Data source: Verispan LLC © 2008

83.3%

83.0%



## PERCENTAGE OF TYPE 2 DIABETES PATIENTS USING INSULIN THERAPIES

	Any In Proc		Intermediate-Acting Insulin		Long- Acting Insulin		Short- Acting Insulin		Mixed Insulin	
MARKET	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007
Las Vegas Reno	29.1% 30.4	34.5% 28.7	4.6% 5.1	3.9% 3.7	15.2% 15.2	19.2% 15.5	12.2% 12.8	12.7% 12.4	5.3% 6.4	8.1% 6.2
Phoenix	33.6	35.5	6.7	5.4	15.8	18.7	15.1	15.3	8.2	7.5
Nevada	29.5	34.0	4.9	4.0	14.9	18.7	12.3	12.7	5.4	7.9
NATION	34.8%	35.6%	5.7%	4.7%	17.1%	19.1%	14.6%	15.2%	9.6%	8.9%

#### PERCENTAGE OF TYPE 2 DIABETES PATIENTS, BY SERVICE: STATE LEADERS, 2007

State Leaders	Any Insulin Product	Intermediate-Acting Insulin	Long- Acting Insulin	Short- Acting Insulin	Mixed Insulin
#1 #2	<b>AK:</b> 41.2% <b>KS:</b> 40.4%	<b>SD:</b> 9.0% <b>MA:</b> 7.7%	<b>KS:</b> 26.2% <b>WI:</b> 24.6%	<b>KS:</b> 23.6% <b>WI:</b> 22.7%	AL: 14.1% MS: 11.7%
#3	<b>WI:</b> 40.3%	<b>MS:</b> 6.9%	<b>MN:</b> 24.1%	<b>ND:</b> 22.1%	<b>MI:</b> 10.3%

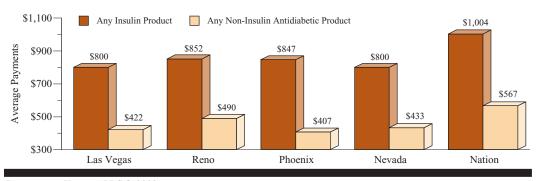
#### PERCENTAGE OF TYPE 2 DIABETES PATIENTS USING NON-INSULIN ANTIDIABETIC THERAPIES

	Any Non-Insulin Antidiabetic Product		Biguanides		Sulfonylureas		Insulin Sensitizing Agents	
MARKET	2006	2007	2006	2007	2006	2007	2006	2007
Las Vegas Reno	85.7% 84.0	80.7% 84.8	51.8% 54.6	48.4% 56.9	39.7% 34.6	37.0% 35.0	30.1% 28.9	22.8% 25.6
Phoenix	82.2	82.4	55.3	55.8	39.5	37.7	26.6	23.2
Nevada	85.0	80.8	52.2	49.1	38.2	36.4	29.3	22.8
NATION	84.7%	84.8%	51.7%	52.5%	40.8%	39.5%	31.1%	26.0%

#### PERCENTAGE OF TYPE 2 DIABETES PATIENTS, BY SERVICE: STATE LEADERS, 2007

State Leaders	Any Non-Insulin Antidiabetic Product	Biguanides	Sulfonylureas	Insulin Sensitizing Agents
#1	CA: 87.3%	OR: 59.5%	RI: 43.5%	WY: 31.4%
#2	NJ: 86.6%	WA: 59.1%	IL: 42.1%	HI: 31.2%
#3	NY: 85.7%	CA: 59.0%	MA & NM: 41.4%	CA: 30.4%

#### AVERAGE PAYMENTS PER TYPE 2 DIABETES PATIENT, BY TYPE OF THERAPY, 2007\*



Data source: Verispan LLC © 2008

# NEVADA TYPE 2 DIABETES PATIENT INSULIN USE GROWS

The share of patients diagnosed with Type 2 diabetes in the state of Nevada and using any insulin product increased notably in 2007, to 34.0% from 29.5% in 2006. In spite of this growth, the share of Type 2 diabetes patients in Nevada who used any insulin product in 2007 remained lower than the national average (35.6%).

# NEVADA PER-PATIENT INSULIN COSTS ARE RELATIVELY LOW

In 2007, any insulin product payments per patient diagnosed with Type 2 diabetes per year were lower in all four local markets than they were nationally (\$1,004) by a considerable margin. Similarly, average payments per year for any non-inusulin product per Type 2 diabetes patient were also notably less in every Nevada market profiled than the national average (\$567).

#### Biguanides

Improve insulin sensitivity; reduce the production of glucose by the liver, decrease intestinal absorption of glucose, and increase the peripheral uptake and use of circulating glucose.

#### Insulin Sensitizing Agents

Improve 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.

#### Sulfonylureas

Stimulate the release of insulin in the pancreas.

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<sup>\*</sup> Figures reflect the per-patient yearly costs for Type 2 diabetes patients receiving a particular type of therapy.



Nevada Health Care Coalition 300 E. Second Street, Suite 1520 Reno, NV 89501

# Leading the way to quality health care in our community...

The Nevada Health Care Coalition is a partnership between public and private sectors formed for the primary purpose of improving the total community's understanding and acceptance of cost-effective delivery and utilization of medical services through educational programs and seminars. The Coalition also focuses on the creation of purchasing initiatives designed to reduce the cost of health care, for the benefit of employers, employees and the community as a whole.

Methodology

Verispan generated data for this **Managed Care Digest Series**<sup>®</sup> database using health care professional (837p) and institutional (837i) insurance claims, representing more than 5.5 million unique patients nationally in 2007 with a range of Type 2 diabetes diagnoses (250.00–250.92). Data from physicians of all specialties and from all hospital types are included.

Verispan also gathers data on prescription activity from the National Council for Prescription Drug Programs (NCPDP). These data account for some 8 billion prescription claims annually, or more than 50% of the prescription universe. These prescription data represent the sampling of prescription activity from a variety of sources, including retail chains, mass merchandisers and pharmacy benefit managers, and come from a near census of more than 59,000 pharmacies in the U.S. Cash, mailorder, Medicaid and third-party transactions are tracked.

# Our member companies include:

Atlantis Casino Resort Spa Boomtown Hotel-Casino Capital City Entertainment (Carson Station) Carson Nugget Carson Valley Inn Carson-Tahoe Regional Medical Ctr. City of Reno City of Sparks Club Cal Neva

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Diocese of Reno Hamilton Company IGT Jacob's Entertainment (Gold Dust West) John Ascuaga's Nugget Reno-Tahoe Airport Authority Scolari's Food & Drug Sierra Pacific Power Company Washoe County Washoe County School District

#### DATA INTEGRITY

Patient-level, disease-specific data arriving into Verispan are put through a rigorous process to ensure that data elements match to valid references, such as product codes, ICD-9 (diagnosis) and CPT-4 (procedure) codes, and provider and facility data.

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, Verispan 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 Verispan 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.

# **NEVADA TYPE 2 DIABETES REPORT 2008**

The Nevada Health Care Coalition and Health Innovations, in conjunction with sanofi-aventis U.S. LLC, are pleased to bring you the second edition of the **Nevada Type 2 Diabetes Report**.

The report features key national, state and local level Type 2 diabetes data from the sanofi-aventis **Managed Care Digest Series**<sup>®</sup>.

- Demographics
- Hospital and Professional Charges
- Use of Services
- Pharmacotherapy

We look forward to providing you with another **Nevada Type 2 Diabetes Report** in 2009.

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