

Nevada

DIABETES AND CARDIOVASCULAR REPORT | 2016



Featuring Demographic, Utilization,
Charge, and Pharmacotherapy Data



NEVADA DIABETES AND CARDIOVASCULAR DISEASE REPORT

Introduction

Sanofi U.S. (Sanofi), in partnership with the Nevada Business Group on Health (NVBGH), iDo, and HealthInsight, is pleased to present the 10th edition of the **Nevada Diabetes and Cardiovascular Disease Report** for 2016, an overview of key demographic, utilization, charge, pharmacotherapy, and readmission measures for Type 2 diabetes patients in key local markets in Nevada. The report also provides comparisons to Los Angeles, Salt Lake City, state of Nevada, and national benchmarks, which can help providers and employers identify opportunities to better serve the needs of their patients. All data are drawn from the Sanofi **Managed Care Digest Series**®.

Sanofi, as sponsor of this report, maintains an arm’s-length relationship with the organizations that prepare this report and carry out the research. The desire of Sanofi is that the information in this report be completely independent and objective.

This 10th edition features a number of examples of the kinds of disease-specific data on Type 2 diabetes that can be provided by the **Managed Care Digest Series**®. The sponsoring organizations 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 report, as the prevalence of this disease has grown considerably in recent years.

This report also includes discharge data for cardiovascular diseases and other conditions that affect Nevada patients. These data are included to help identify potential gaps in care.

The data in this report (covering 2010 through 2015) were gathered by IMS Health, Parsippany, NJ, a leading provider of innovative health care data products and analytic services. The data provide health care providers with independent, third-party information they can use to benchmark their own data on patient demographics, professional and facility charges, utilization, and pharmacotherapy.

Methodology

IMS Health generated most of the Type 2 diabetes data for this data brief out of health care professional (837p) and institutional (837I) insurance claims, representing more than 9 million unique patients nationally in 2015 with a diagnosis of Type 2 diabetes (ICD-9 codes 249.00-250.92; ICD-10 codes E08, E09, E11, E13). Data from physicians of all specialties and from all hospital types are included.

Inpatient case counts, average length of stay and inpatient charge data come from IMS Health’s *Hospital Procedure/Diagnosis (HPD)* Database. This database contains an extensive set of hospital inpatient and outpatient discharge records, including actual diagnoses and procedures for about 75% of discharges nationwide (including 100% of Medicare-reimbursed discharges).

IMS Health also gathers data on prescription activity from the National Council for Prescription Drug Programs (NCPDP). These data represent some 2 billion prescription claims annually, or more than 86% of the prescription universe. These data represent the sampling of prescription activity from a variety of sources, including retail chains, mass merchandisers and pharmacy benefit managers. Cash, mail-order, Medicaid, and third-party transactions are tracked.

DATA INTEGRITY

Patient-level, disease-specific data arriving into IMS Health are put through a rigorous process to ensure that data elements match to valid references, such as product codes, ICD-9/10 (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, IMS Health creates a unique, random numerical identifier for every patient, and then strips away all patient-specific health information that is protected under HIPAA. The identifier allows IMS Health to track disease-specific diagnosis and procedure activity across many settings where care is provided.

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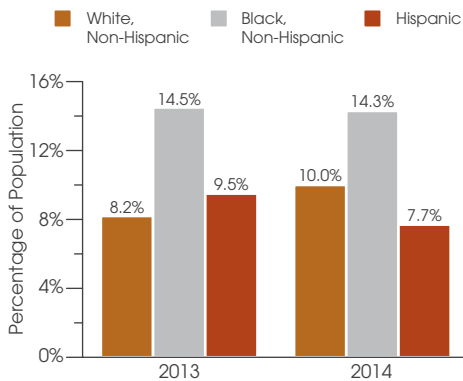


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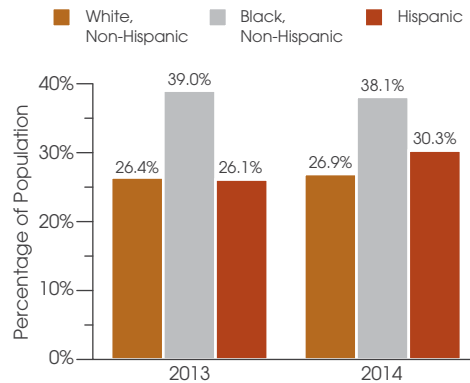
PATIENT DEMOGRAPHICS



PERCENTAGE OF NEVADA POPULATION WITH DIABETES, BY RACE/ETHNICITY, 2013-2014



PERCENTAGE OF NEVADA POPULATION WITH OBESITY, BY RACE/ETHNICITY, 2013-2014



DIABETES PREVALENCE IS INCREASING AMONG WHITE NEVADA RESIDENTS

In 2014, one in every 10 non-Hispanic white Nevadans had been told by a physician that they were diabetic, increasing from 8.2% the prior year. Among Nevada residents who are black non-Hispanic, 14.3% were diabetic that year. From 2013 to 2014, the shares of Nevada residents diagnosed with obesity climbed among the non-Hispanic white (to 26.9% from 26.4%) and Hispanic (to 30.3% from 26.1%) populations. More than 38% of non-Hispanic black Nevadans were diagnosed with obesity in 2014.

WORKING-AGE SHARE OF NEVADA TYPE 2 DIABETES PATIENTS INCHES UP

In 2015, 45.3% of Nevada Type 2 diabetes patients were between the ages of 18 and 64, a slight increase from 44.8% the prior year, but still a lower percentage than that of the nation (48.0%) that year. However, Nevada Type 2 diabetes patients were more apt to be covered by commercial insurers in 2015: 56.1% versus 48.7%.

Data source: Centers for Disease Control and Prevention (CDC), Behavioral Risk Factor Surveillance System Survey Data, Atlanta, Georgia; U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2015. Data shown are the most current available.

PERCENTAGE OF TYPE 2 DIABETES PATIENTS, BY AGE, GENDER AND PAYER, 2014-2015¹

| AGE | Las Vegas | | Reno | | Los Angeles | | Salt Lake City | | Nevada | | NATION | |
|-----------------------------------|-----------|-------|-------|-------|-------------|-------|----------------|-------|--------|-------|--------|-------|
| | 2014 | 2015 | 2014 | 2015 | 2014 | 2015 | 2014 | 2015 | 2014 | 2015 | 2014 | 2015 |
| 0-17 | 0.5% | 0.7% | 0.8% | 1.1% | 0.4% | 1.1% | 0.9% | 1.1% | 0.6% | 0.8% | 0.5% | 1.0% |
| 18-35 | 2.8 | 3.0 | 2.9 | 2.7 | 2.5 | 3.4 | 3.8 | 3.6 | 2.7 | 2.9 | 2.9 | 3.0 |
| 36-64 | 42.1 | 42.4 | 42.1 | 41.2 | 42.2 | 44.9 | 46.1 | 46.2 | 42.1 | 42.4 | 45.1 | 45.0 |
| 65-79 | 43.2 | 42.6 | 42.2 | 43.0 | 38.4 | 36.0 | 38.2 | 38.1 | 42.9 | 42.5 | 38.4 | 38.4 |
| 80+ | 11.5 | 11.4 | 12.1 | 12.0 | 16.5 | 14.7 | 11.1 | 11.0 | 11.7 | 11.4 | 13.2 | 12.7 |
| GENDER | | | | | | | | | | | | |
| Male | 49.7% | 50.0% | 50.2% | 50.0% | 46.9% | 46.8% | 48.2% | 49.0% | 49.7% | 49.9% | 46.8% | 46.9% |
| Female | 50.3 | 50.0 | 49.8 | 50.0 | 53.1 | 53.2 | 51.8 | 51.0 | 50.3 | 50.1 | 53.2 | 53.1 |
| PAYER | | | | | | | | | | | | |
| Commercial Insurance ² | 55.3% | 55.6% | 53.4% | 51.8% | 49.7% | 52.7% | 59.8% | 61.0% | 56.1% | 56.1% | 48.9% | 48.7% |
| Medicare | 36.5 | 34.9 | 40.3 | 40.8 | 38.6 | 32.0 | 33.0 | 31.4 | 37.3 | 35.7 | 39.7 | 38.5 |
| Medicaid | 8.2 | 9.6 | 6.2 | 7.3 | 11.6 | 15.3 | 7.1 | 7.6 | 6.6 | 8.2 | 11.5 | 12.7 |

PERCENTAGE OF TYPE 2 DIABETES PATIENTS, BY DIAGNOSING SPECIALIST, 2014-2015

| MARKET | Primary Care ³ | | Internal Medicine | | Cardiology | | Endocrinology | |
|----------------|---------------------------|--------------|-------------------|--------------|-------------|-------------|---------------|-------------|
| | 2014 | 2015 | 2014 | 2015 | 2014 | 2015 | 2014 | 2015 |
| Las Vegas | 24.8% | 23.8% | 30.7% | 28.5% | 4.2% | 4.2% | 3.5% | 3.2% |
| Reno | 33.7 | 32.7 | 15.9 | 16.2 | 3.8 | 3.8 | 4.9 | 4.5 |
| Los Angeles | 22.3 | 23.0 | 23.0 | 21.5 | 5.2 | 4.8 | 4.6 | 4.1 |
| Salt Lake City | 34.6 | 35.7 | 18.7 | 18.2 | 2.9 | 2.7 | 3.8 | 3.6 |
| Nevada | 26.5 | 25.2 | 27.4 | 26.0 | 3.8 | 3.8 | 4.1 | 3.7 |
| NATION | 27.8% | 27.8% | 24.2% | 23.7% | 4.6% | 4.5% | 4.8% | 4.7% |

¹ On pages 3-10, the percentages are representative of the universe of Type 2 diabetes patients for whom claims data have been collected in a given year.

² Includes HMOs, PPOs, point-of-service plans, and exclusive provider organizations.

³ "Primary care" consists of both general and family practitioners.

NOTE: Inpatient/outpatient case counts data come from IMS Health's Hospital Procedure/Diagnosis (HPD) database and are current as of calendar year 2015.

Throughout this report, the Los Angeles market includes Long Beach, and Salt Lake City includes Ogden.

Data source: IMS Health © 2016



COMPLICATIONS/COMORBIDITIES

NOTABLE SHARE OF NEVADA TYPE 2 DIABETES PATIENTS HAVE 2+ COMPLICATIONS

In 2015, 37.4% of Nevada Type 2 diabetes patients had two or more complications arising from their disease, an increase from the 2014 benchmark (36.8%), and a larger share than the corresponding national portion in both years.

COMPLICATION RATES ARE ABOVE U.S. MEANS FOR NV TYPE 2 DIABETES PATIENTS

The shares of Type 2 diabetes patients with complications of neuropathy, nephropathy, PAD, or hypoglycemia were higher in Nevada than they were nationally in 2015. For example, 13.9% of Nevada Type 2 diabetes patients had a complication of hypoglycemia that year, compared with 9.1% nationally. In Las Vegas, this percentage was even greater, at 14.5%. Meanwhile, 62.8% of Nevada Type 2 diabetes patients had hyperlipidemia as a comorbidity, compared with 60.9% nationally.

PERCENTAGE OF TYPE 2 DIABETES PATIENTS, BY NUMBER OF COMPLICATIONS, 2014-2015¹

| MARKET | 0 | | 1 | | 2 | | >2 | |
|----------------|--------------|--------------|--------------|--------------|-------------|-------------|--------------|--------------|
| | 2014 | 2015 | 2014 | 2015 | 2014 | 2015 | 2014 | 2015 |
| Las Vegas | 45.7% | 44.5% | 13.9% | 14.8% | 8.9% | 9.3% | 31.5% | 31.5% |
| Reno | 57.6 | 57.5 | 15.7 | 16.0 | 8.0 | 8.8 | 18.7 | 17.7 |
| Los Angeles | 53.3 | 53.0 | 15.9 | 15.3 | 8.8 | 8.8 | 22.0 | 22.9 |
| Salt Lake City | 61.5 | 60.4 | 14.4 | 15.7 | 7.5 | 7.9 | 16.7 | 16.1 |
| Nevada | 48.8 | 47.6 | 14.4 | 15.0 | 8.6 | 9.1 | 28.2 | 28.3 |
| NATION | 53.6% | 53.3% | 15.3% | 15.7% | 8.9% | 9.0% | 22.2% | 22.0% |

PERCENTAGE OF TYPE 2 DIABETES PATIENTS, BY ACTUAL COMPLICATION, 2015¹

| MARKET | Cardiovascular Disease | Neuropathy | Nephropathy | PAD | Retinopathy | Hypoglycemia |
|----------------|------------------------|--------------|--------------|--------------|--------------|--------------|
| Las Vegas | 48.8% | 41.2% | 45.1% | 20.6% | 14.5% | 14.5% |
| Reno | 44.1 | 32.7 | 36.8 | 11.3 | 19.8 | 7.7 |
| Los Angeles | 42.6 | 35.4 | 39.4 | 15.7 | 20.1 | 16.2 |
| Salt Lake City | 33.5 | 39.9 | 36.0 | 8.6 | 19.1 | 9.4 |
| Nevada | 48.4 | 39.5 | 43.7 | 19.6 | 15.8 | 13.9 |
| NATION | 48.8% | 36.3% | 35.6% | 15.0% | 18.0% | 9.1% |

PERCENTAGE OF TYPE 2 DIABETES PATIENTS, BY NUMBER OF COMORBIDITIES, 2014-2015²

| MARKET | 0 | | 1 | | 2 | | >2 | |
|----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | 2014 | 2015 | 2014 | 2015 | 2014 | 2015 | 2014 | 2015 |
| Las Vegas | 31.3% | 31.8% | 12.2% | 13.0% | 11.6% | 12.1% | 44.9% | 43.0% |
| Reno | 39.8 | 45.7 | 15.0 | 13.3 | 12.0 | 10.4 | 33.3 | 30.5 |
| Los Angeles | 46.3 | 43.9 | 15.2 | 14.2 | 11.1 | 10.9 | 27.4 | 31.1 |
| Salt Lake City | 47.4 | 47.8 | 13.4 | 14.5 | 12.4 | 12.4 | 26.8 | 25.3 |
| Nevada | 34.4 | 35.3 | 12.8 | 13.2 | 11.7 | 11.9 | 41.1 | 39.6 |
| NATION | 36.8% | 37.8% | 12.6% | 13.0% | 11.9% | 12.1% | 38.7% | 37.2% |

¹ 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, cardiovascular disease, hypoglycemia, nephropathy, neuropathy, peripheral artery disease (PAD), and retinopathy.

² 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 that are typically present in patients with Type 2 diabetes. Comorbidities of Type 2 diabetes may include, but are not limited to, acute myocardial infarction, congestive heart failure, depression, hyperlipidemia, hypertension, obesity, and pneumonia.

PERCENTAGE OF TYPE 2 DIABETES PATIENTS, BY ACTUAL COMORBIDITY, 2015²

| MARKET | Hypertension | Hyperlipidemia | Obesity | Congestive Heart Failure | Depression |
|----------------|--------------|----------------|--------------|--------------------------|--------------|
| Las Vegas | 80.8% | 64.3% | 17.3% | 11.3% | 9.0% |
| Reno | 73.8 | 56.6 | 21.8 | 10.3 | 9.9 |
| Los Angeles | 76.2 | 55.6 | 20.5 | 11.5 | 8.9 |
| Salt Lake City | 71.4 | 56.4 | 13.9 | 8.4 | 13.8 |
| Nevada | 79.4 | 62.8 | 17.8 | 11.2 | 9.2 |
| NATION | 79.4% | 60.9% | 19.5% | 11.6% | 10.4% |

Data source: IMS Health © 2016

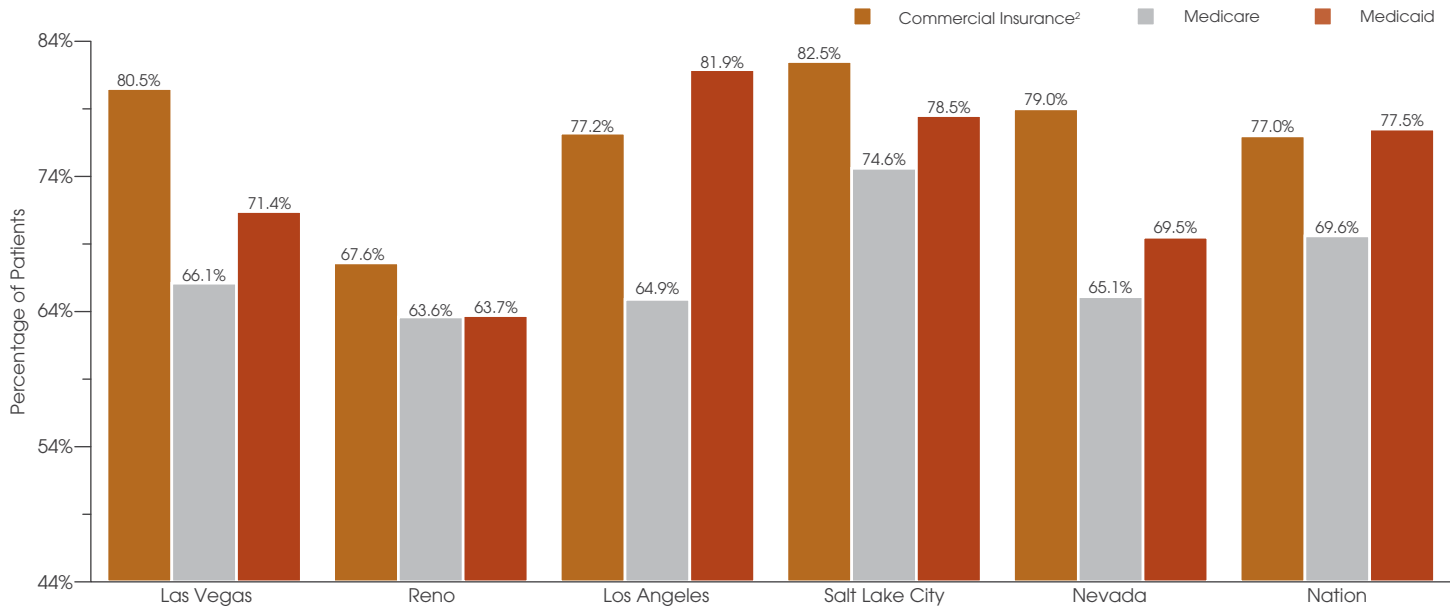
USE OF SERVICES



PERCENTAGE OF TYPE 2 DIABETES PATIENTS, BY SERVICE, 2014-2015

| MARKET | A1c Test ¹ | | Blood Glucose Test | | Serum Cholesterol Test | | Ophthalmologic Exam | | Urine Microalbumin Test | |
|----------------|-----------------------|--------------|--------------------|--------------|------------------------|--------------|---------------------|--------------|-------------------------|--------------|
| | 2014 | 2015 | 2014 | 2015 | 2014 | 2015 | 2014 | 2015 | 2014 | 2015 |
| Las Vegas | 74.8% | 74.9% | 86.7% | 87.0% | 84.3% | 84.5% | 63.7% | 63.6% | 74.7% | 74.6% |
| Reno | 68.7 | 65.6 | 81.2 | 79.9 | 79.2 | 77.2 | 66.3 | 65.2 | 70.0 | 67.8 |
| Los Angeles | 72.6 | 73.7 | 87.9 | 88.3 | 85.3 | 85.6 | 66.0 | 65.2 | 67.9 | 68.1 |
| Salt Lake City | 78.9 | 79.9 | 85.7 | 85.9 | 82.6 | 82.7 | 63.7 | 63.7 | 69.7 | 69.5 |
| Nevada | 74.1 | 73.7 | 85.6 | 85.6 | 83.2 | 83.0 | 63.9 | 63.5 | 73.7 | 73.1 |
| NATION | 73.9% | 74.0% | 86.7% | 86.6% | 84.4% | 84.3% | 69.7% | 69.4% | 71.4% | 71.3% |

PERCENTAGE OF TYPE 2 DIABETES PATIENTS RECEIVING A1c TESTS, BY PAYER, 2015¹



PERCENTAGE OF TYPE 2 DIABETES PATIENTS, BY A1c LEVEL RANGE AND BY PAYER, 2015¹

| MARKET | ≤7.0% | | | 7.1-7.9% | | | 8.0-9.0% | | | >9.0% | | |
|----------------|------------------------|--------------|--------------|------------------------|--------------|--------------|------------------------|--------------|--------------|------------------------|--------------|--------------|
| | Comm Ins. ² | Medicare | Medicaid | Comm Ins. ² | Medicare | Medicaid | Comm Ins. ² | Medicare | Medicaid | Comm Ins. ² | Medicare | Medicaid |
| Las Vegas | 49.9% | 58.2% | 42.1% | 20.6% | 21.2% | 17.4% | 13.7% | 10.5% | 16.4% | 15.8% | 10.1% | 24.2% |
| Reno | 47.3 | 53.6 | 37.4 | 20.4 | 22.6 | 16.9 | 15.9 | 12.6 | 12.1 | 16.4 | 11.1 | 33.7 |
| Los Angeles | 45.0 | 50.4 | 39.2 | 23.3 | 22.8 | 19.2 | 14.6 | 13.3 | 15.8 | 17.2 | 13.6 | 25.8 |
| Salt Lake City | 47.5 | 50.5 | 44.7 | 22.1 | 23.7 | 25.7 | 13.8 | 13.4 | 13.1 | 16.7 | 12.4 | 16.5 |
| Nevada | 48.0 | 56.0 | 35.3 | 20.5 | 21.9 | 16.8 | 14.8 | 11.8 | 17.1 | 16.7 | 10.4 | 30.9 |
| NATION | 47.7% | 52.3% | 42.5% | 21.7% | 21.9% | 18.0% | 13.9% | 13.0% | 14.3% | 16.7% | 12.8% | 25.2% |

NEARLY A THIRD OF NV TYPE 2 DIABETES PTS. WITH MEDICAID HAVE A1c >9.0%

Just under 31% of Nevada Type 2 diabetes patients covered by Medicaid had A1c levels above 9.0% in 2015, a rate that surpassed the corresponding national benchmark by 5.7 percentage points. Meanwhile, one in six such patients with commercial insurance had an A1c level in this highest range.

Data source: IMS Health © 2016

¹ The A1c test measures the amount of glucose present in the blood during the past 2-3 months. Figures reflect the percentage of Type 2 diabetes patients who have had at least one A1c test in a given year.

² Includes HMOs, PPOs, point-of-service plans, and exclusive provider organizations.



INPATIENT AND OUTPATIENT CASES/ALOS

INPATIENT DIABETES MELLITUS CASE COUNTS ARE TWICE U.S. AVERAGES IN NV HOSPITALS

For all three payer types, the numbers of inpatient diabetes mellitus cases per hospital per year in Nevada were more than double what they were nationally in 2014. For example, Nevada hospitals discharged, on average, 464.8 such cases covered by commercial insurance, compared with 200.2 across the nation. Non-Medicare outpatient case volumes for this diagnosis were also greater than the U.S. benchmark in Las Vegas, Reno, and across Nevada.

EMERGENCY DEPT. SHARE OF OUTPATIENT DIABETES CASES IS HIGH IN LAS VEGAS

Close to 47% of Las Vegas outpatient diabetes mellitus cases were treated in the emergency department in 2014, a portion that exceeded the national mark of 28.6%, as well as the corresponding percentages for all other profiled markets. Statewide, emergency departments treated roughly a third of such outpatient cases that year.

NUMBERS OF INPATIENT DIABETES MELLITUS CASES PER HOSPITAL PER YEAR, BY PAYER, 2013-2014

| MARKET | Commercial Insurance ¹ | | Medicare | | Medicaid | |
|----------------|-----------------------------------|--------------|--------------|--------------|--------------|--------------|
| | 2013 | 2014 | 2013 | 2014 | 2013 | 2014 |
| Las Vegas | 400.4 | 464.8 | 979.0 | 1,252.6 | 185.2 | 388.8 |
| Reno | 370.3 | 1,094.0 | 1,093.3 | 3,575.5 | 132.0 | 979.0 |
| Los Angeles | 393.2 | 165.3 | 1,105.7 | 457.1 | 444.5 | 156.3 |
| Salt Lake City | 216.9 | 222.7 | 722.4 | 660.8 | 126.6 | 151.5 |
| Nevada | 323.7 | 464.8 | 733.7 | 1,252.6 | 143.0 | 388.8 |
| NATION | 239.7 | 200.2 | 799.0 | 578.8 | 150.9 | 113.5 |

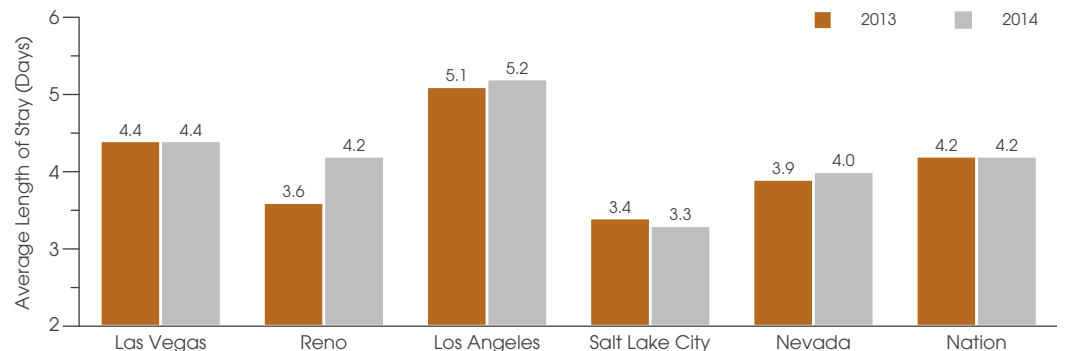
NUMBERS OF OUTPATIENT DIABETES MELLITUS CASES PER HOSPITAL PER YEAR, MEDICARE VS. NON-MEDICARE, 2013-2014

| MARKET | Medicare | | Non-Medicare | |
|----------------|----------------|----------------|----------------|----------------|
| | 2013 | 2014 | 2013 | 2014 |
| Las Vegas | 1,693.0 | 1,789.5 | 2,740.1 | 4,123.1 |
| Reno | 3,141.0 | 3,148.3 | 3,492.3 | 10,502.8 |
| Los Angeles | 2,227.8 | 2,255.3 | 3,200.1 | 3,850.8 |
| Salt Lake City | 2,914.3 | 3,284.4 | 3,655.1 | 4,123.5 |
| Nevada | 1,608.3 | 1,637.7 | 2,280.1 | 4,796.4 |
| NATION | 3,250.1 | 3,334.9 | 3,405.4 | 3,270.6 |

DISTRIBUTION OF OUTPATIENT CASES, BY SETTING, 2014

| MARKET | Emergency Department | | Ambulatory Surgery | | All Other Outpatient Cases ² | |
|----------------|----------------------|-----------------|--------------------|-----------------|---|-----------------|
| | Overall | w/ Hypoglycemia | Overall | w/ Hypoglycemia | Overall | w/ Hypoglycemia |
| Las Vegas | 46.9% | 21.8% | 24.4% | 37.0% | 28.8% | 41.1% |
| Reno | 20.3 | 14.4 | 46.6 | 45.2 | 33.2 | 40.4 |
| Los Angeles | 46.2 | 64.2 | 11.7 | 15.7 | 42.1 | 20.1 |
| Salt Lake City | 32.9 | 35.9 | 13.7 | 17.1 | 53.4 | 47.0 |
| Nevada | 32.3 | 19.0 | 34.6 | 40.2 | 33.1 | 40.8 |
| NATION | 28.6% | 35.0% | 13.7% | 20.8% | 57.7% | 44.2% |

AVERAGE LENGTH OF STAY (DAYS) PER INPATIENT DIABETES MELLITUS CASE, 2013-2014



¹ Includes HMOs, PPOs, point-of-service plans, and exclusive provider organizations.

² "All other outpatient cases" includes any outpatient visit that did not require surgery or arrive as an emergency. Services rendered include, but are not limited to, lab work and wellness visits, etc.

NOTE: Inpatient/outpatient case counts and average length of stay (ALOS) data come from IMS Health's Hospital Procedure/Diagnosis (HPD) database and are current as of calendar year 2014.

Data source: IMS Health © 2016

FACILITY CHARGES



FACILITY CHARGES PER PATIENT PER YEAR FOR TYPE 2 DIABETES, 2014–2015¹

| MARKET | Hospital Inpatient | | Hospital Outpatient | |
|----------------|--------------------|-----------------|---------------------|-----------------|
| | 2014 | 2015 | 2014 | 2015 |
| Las Vegas | \$38,966 | \$41,081 | \$8,365 | \$9,608 |
| Reno | 46,676 | 33,652 | 10,640 | 11,043 |
| Los Angeles | 48,201 | 49,398 | 14,605 | 15,372 |
| Salt Lake City | 32,282 | 36,113 | 13,334 | 15,581 |
| Nevada | 40,943 | 39,962 | 8,807 | 10,230 |
| NATION | \$41,859 | \$43,183 | \$11,762 | \$12,253 |

FACILITY CHARGES ARE ON THE RISE FOR LAS VEGAS TYPE 2 DIABETES PATIENTS

From 2014 to 2015, average annual facility charges for Las Vegas Type 2 diabetes patients increased across both inpatient and outpatient settings. Hospital outpatient charges also expanded in Reno—to \$11,043 from \$10,640—and statewide during that time.

FACILITY INPATIENT CHARGES PER PATIENT PER YEAR FOR TYPE 2 DIABETES, BY ACTUAL COMPLICATION, 2015^{1,2}

| MARKET | Cardiovascular Disease | Hypoglycemia | Nephropathy | Neuropathy | PAD |
|----------------|------------------------|-----------------|-----------------|-----------------|-----------------|
| Las Vegas | \$46,455 | \$49,067 | \$46,003 | \$47,230 | \$52,494 |
| Los Angeles | 53,261 | 51,720 | 53,870 | 51,746 | 52,450 |
| Salt Lake City | 34,570 | 40,110 | — | 43,177 | — |
| Nevada | 44,438 | 52,713 | 45,773 | 50,110 | 54,197 |
| NATION | \$47,582 | \$52,321 | \$49,839 | \$48,844 | \$50,363 |

HYPOGLYCEMIA DRIVES UP FACILITY CHARGES IN NV FOR TYPE 2 DIABETES PATIENTS

In 2015, annual inpatient facility charges per Nevada Type 2 diabetes patient with a complication of hypoglycemia were \$52,713, 31.9% higher than the corresponding overall average of \$39,962.

FACILITY INPATIENT CHARGES PER PATIENT PER YEAR FOR TYPE 2 DIABETES, BY PAYER, 2014–2015¹

| MARKET | Commercial Insurance ³ | | Medicare | | Medicaid | |
|----------------|-----------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | 2014 | 2015 | 2014 | 2015 | 2014 | 2015 |
| Las Vegas | \$35,896 | \$41,526 | \$41,816 | \$38,566 | — | — |
| Reno | — | 34,916 | 42,397 | — | — | — |
| Los Angeles | 42,627 | 42,960 | 49,333 | 51,603 | \$44,228 | 43,831 |
| Salt Lake City | 31,093 | 31,041 | 34,926 | 39,941 | — | — |
| Nevada | 39,994 | 41,184 | 41,586 | 37,012 | — | — |
| NATION | \$37,462 | \$38,430 | \$41,192 | \$40,963 | \$39,551 | \$41,054 |

IP CHARGES SURGE FOR LAS VEGAS TYPE 2 DIABETES PTS. WITH COMMERCIAL INS.

After growing by 15.7% from 2014 (\$35,896) to 2015 (\$41,526) annual inpatient (IP) facility charges per commercially insured Type 2 diabetes patient in Las Vegas surpassed the corresponding U.S. mark in 2015.

FACILITY OUTPATIENT CHARGES PER PATIENT PER YEAR FOR TYPE 2 DIABETES, BY PAYER, 2014–2015¹

| MARKET | Commercial Insurance ³ | | Medicare | | Medicaid | |
|----------------|-----------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | 2014 | 2015 | 2014 | 2015 | 2014 | 2015 |
| Las Vegas | \$7,244 | \$9,380 | \$8,964 | \$7,945 | \$5,238 | \$3,646 |
| Reno | 9,223 | 8,417 | 10,366 | 10,206 | 2,561 | — |
| Los Angeles | 12,204 | 12,387 | 14,751 | 15,514 | 12,403 | 13,520 |
| Salt Lake City | 13,389 | 15,265 | 10,291 | 9,814 | 13,427 | 20,535 |
| Nevada | 7,979 | 9,406 | 8,917 | 8,700 | 4,258 | 4,511 |
| NATION | \$9,554 | \$10,044 | \$11,448 | \$10,737 | \$10,744 | \$10,812 |

¹ Figures reflect the charges generated by the facilities that delivered care. The data also reflect the amounts charged, not the amounts paid.

² 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.

³ Includes HMOs, PPOs, point-of-service plans and exclusive provider organizations.

NOTE: Due to low patient claims counts, hospital inpatient and outpatient charge data by complication or payer were unavailable for some of the selected state and local markets.



PROFESSIONAL CHARGES

PROVIDER CHARGES FOR NV TYPE 2 DIABETES PATIENTS EXCEED NATIONAL MEANS

In 2015, average annual professional charges for Nevada Type 2 diabetes patients were greater than those of the nation in four of five profiled settings of care (hospital outpatient excluded). For example, provider charges for these Nevada patients treated in the state's emergency rooms (\$2,584) were 68.4% higher than the national average (\$1,534).

COMPLICATIONS DRIVE UP IP PROVIDER CHARGES FOR NV TYPE 2 DIABETES PATIENTS

Inpatient (IP) professional charges for Nevada Type 2 diabetes patients with any of six common complications surpassed those of Nevada Type 2 diabetes patients overall in 2015. In particular, the state's Type 2 diabetes patients with a complication of hypoglycemia had average annual inpatient professional charges of \$6,286, highest among the profiled complications, compared with \$3,841 for Nevada's Type 2 diabetes patients overall.

PROFESSIONAL CHARGES PER PATIENT PER YEAR FOR TYPE 2 DIABETES PATIENTS, 2014-2015¹

| MARKET | Ambulatory Surgery Center | | Emergency Room | | Hospital Inpatient | | Hospital Outpatient | | Office/Clinic | |
|----------------|---------------------------|---------|----------------|---------|--------------------|---------|---------------------|---------|---------------|---------|
| | 2014 | 2015 | 2014 | 2015 | 2014 | 2015 | 2014 | 2015 | 2014 | 2015 |
| Las Vegas | \$3,361 | \$3,196 | \$2,449 | \$2,694 | \$4,349 | \$4,010 | \$1,398 | \$1,305 | \$3,135 | \$2,968 |
| Reno | 3,137 | 3,327 | 2,010 | 2,188 | 3,125 | 2,824 | 1,446 | 1,178 | 2,174 | 2,177 |
| Los Angeles | 2,630 | 2,428 | 1,225 | 1,415 | 3,409 | 3,434 | 1,367 | 1,331 | 2,256 | 2,357 |
| Salt Lake City | 3,988 | 3,129 | 1,431 | 1,706 | 3,324 | 3,140 | 1,577 | 1,588 | 2,107 | 1,940 |
| Nevada | 3,397 | 3,322 | 2,322 | 2,584 | 4,139 | 3,841 | 1,407 | 1,263 | 2,953 | 2,846 |
| NATION | \$3,143 | \$2,963 | \$1,280 | \$1,534 | \$3,433 | \$3,316 | \$1,299 | \$1,291 | \$2,203 | \$2,163 |

PROFESSIONAL INPATIENT CHARGES PER PATIENT PER YEAR FOR TYPE 2 DIABETES, BY ACTUAL COMPLICATION, 2015^{1,2}

| MARKET | Cardio-vascular Disease | Hypo-glycemia | Nephropathy | Neuropathy | PAD | Retinopathy |
|----------------|-------------------------|---------------|-------------|------------|---------|-------------|
| Las Vegas | \$5,303 | \$6,532 | \$5,722 | \$5,750 | \$6,332 | \$4,747 |
| Reno | 3,803 | 4,145 | 4,056 | 4,052 | 4,609 | 3,350 |
| Los Angeles | 4,771 | 5,918 | 5,465 | 5,263 | 5,891 | 4,798 |
| Salt Lake City | 4,233 | 4,368 | 4,209 | 3,814 | 5,277 | 3,581 |
| Nevada | 5,129 | 6,286 | 5,587 | 5,630 | 6,168 | 4,573 |
| NATION | \$4,377 | \$5,927 | \$5,004 | \$4,773 | \$5,415 | \$4,069 |

PROFESSIONAL INPATIENT CHARGES PER PATIENT PER YEAR FOR TYPE 2 DIABETES, BY PAYER, 2014-2015¹

| MARKET | Commercial Insurance ³ | | Medicare | | Medicaid | |
|----------------|-----------------------------------|---------|----------|---------|----------|---------|
| | 2014 | 2015 | 2014 | 2015 | 2014 | 2015 |
| Las Vegas | \$4,082 | \$3,735 | \$3,579 | \$3,134 | \$3,788 | \$3,553 |
| Reno | 2,847 | 2,330 | 2,487 | 2,262 | 3,646 | 2,737 |
| Los Angeles | 3,426 | 3,232 | 2,562 | 2,259 | 3,519 | 4,046 |
| Salt Lake City | 3,209 | 3,257 | 2,517 | 2,299 | 2,231 | 1,924 |
| Nevada | 3,929 | 3,574 | 3,349 | 2,981 | 3,829 | 3,494 |
| NATION | \$3,196 | \$3,078 | \$2,838 | \$2,627 | \$3,246 | \$3,322 |

PROFESSIONAL OUTPATIENT CHARGES PER PATIENT PER YEAR FOR TYPE 2 DIABETES, BY PAYER, 2014-2015¹

| MARKET | Commercial Insurance ³ | | Medicare | | Medicaid | |
|----------------|-----------------------------------|---------|----------|---------|----------|---------|
| | 2014 | 2015 | 2014 | 2015 | 2014 | 2015 |
| Las Vegas | \$1,478 | \$1,400 | \$1,144 | \$984 | \$1,415 | \$1,297 |
| Reno | 1,267 | 1,041 | 1,417 | 1,095 | 1,606 | 1,571 |
| Los Angeles | 1,462 | 1,394 | 1,122 | 1,031 | 1,121 | 1,231 |
| Salt Lake City | 1,461 | 1,572 | 1,462 | 1,326 | 1,193 | 1,135 |
| Nevada | 1,427 | 1,304 | 1,209 | 1,006 | 1,506 | 1,285 |
| NATION | \$1,248 | \$1,242 | \$1,155 | \$1,101 | \$1,280 | \$1,333 |

¹ Professional charges are those generated by the providers delivering care to Type 2 diabetes patients in various settings.

² 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, cardiovascular disease, hypoglycemia, nephropathy, neuropathy, peripheral artery disease (PAD), and retinopathy.

³ Includes HMOs, PPOs, point-of-service plans, and exclusive provider organizations.

Data source: IMS Health © 2016

PHARMACOTHERAPY



PERCENTAGE OF TYPE 2 DIABETES PATIENTS RECEIVING VARIOUS INSULIN THERAPIES, 2015¹

| MARKET | Any Insulin Products | Long-Acting Insulin | Short-Acting Insulin | Rapid-Acting Insulin | Mixed Insulin | Intermediate-Acting Insulin |
|----------------|----------------------|---------------------|----------------------|----------------------|---------------|-----------------------------|
| Las Vegas | 31.8% | 26.2% | 17.1% | 15.8% | 2.8% | 1.2% |
| Reno | 34.1 | 27.6 | 17.1 | 15.9 | 4.4 | 1.2 |
| Los Angeles | 32.5 | 24.6 | 16.1 | 14.1 | 5.7 | 2.4 |
| Salt Lake City | 36.8 | 30.1 | 21.0 | 20.3 | 2.2 | 0.8 |
| Nevada | 31.7 | 26.1 | 17.0 | 15.8 | 2.8 | 1.2 |
| NATION | 34.0% | 26.4% | 17.8% | 16.7% | 4.4% | 1.4% |

NEVADA TYPE 2 DIABETES PATIENTS ARE LESS LIKELY TO USE ANY INSULIN PRODUCTS

In 2015, 31.7% of Nevada Type 2 diabetes patients filled a prescription for any insulin products, compared with 34.0% of similar patients nationwide. That year, 87.7% of Nevada Type 2 diabetes patients were dispensed any non-insulin antidiabetic product versus 85.8% of such patients nationally. Of Nevada Type 2 diabetes patients with an A1c level above 9.0% on their last exam, 61.0% received any insulin products, while 79.1% of similar Nevada patients received a non-insulin antidiabetic product.

PERCENTAGE OF TYPE 2 DIABETES PATIENTS USING ANY INSULIN PRODUCTS, BY A1c LEVEL, 2014–2015^{1,2}

| MARKET | ≤7.0% | | 7.1–7.9% | | 8.0–9.0% | | >9.0% | |
|----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | 2014 | 2015 | 2014 | 2015 | 2014 | 2015 | 2014 | 2015 |
| Las Vegas | 16.0% | 16.1% | 39.5% | 37.6% | 51.9% | 53.6% | 63.1% | 64.3% |
| Reno | 11.5 | 13.4 | 29.8 | 33.2 | 55.8 | 51.1 | 62.7 | 65.7 |
| Los Angeles | 15.1 | 14.1 | 30.5 | 30.0 | 48.5 | 46.3 | 59.9 | 59.6 |
| Salt Lake City | 17.1 | 16.6 | 39.0 | 42.6 | 58.5 | 60.1 | 75.2 | 68.5 |
| Nevada | 14.7 | 15.3 | 34.7 | 34.6 | 50.1 | 49.7 | 61.5 | 61.0 |
| NATION | 15.8% | 15.6% | 33.2% | 33.6% | 50.8% | 50.4% | 64.7% | 63.7% |

PERCENTAGE OF TYPE 2 DIABETES PATIENTS RECEIVING VARIOUS NON-INSULIN ANTIDIABETIC THERAPIES, 2015

| MARKET | Any Non-Insulin Antidiabetic Product | Biguanides | Sulfonylureas | DPP-4 Inhibitors | GLP-1 Receptor Agonists | GLP-1+ Long-Acting Insulin | Insulin Sensitizing Agents | SGLT-2 Inhibitors |
|----------------|--------------------------------------|--------------|---------------|------------------|-------------------------|----------------------------|----------------------------|-------------------|
| Las Vegas | 87.5% | 64.1% | 33.9% | 11.5% | 7.1% | 2.2% | 5.9% | 7.9% |
| Reno | 86.6 | 67.5 | 27.6 | 11.5 | 5.6 | 2.0 | 6.5 | 7.3 |
| Los Angeles | 88.7 | 65.1 | 35.5 | 18.3 | 4.9 | 1.8 | 8.2 | 6.0 |
| Salt Lake City | 84.0 | 66.5 | 26.1 | 9.8 | 7.0 | 2.5 | 6.0 | 6.7 |
| Nevada | 87.7 | 64.6 | 32.9 | 11.5 | 7.3 | 2.3 | 6.2 | 8.4 |
| NATION | 85.8% | 63.5% | 31.3% | 12.5% | 6.4% | 2.2% | 5.1% | 6.8% |

PERCENTAGE OF TYPE 2 DIABETES PATIENTS USING ANY NON-INSULIN PRODUCTS, BY A1c LEVEL, 2014–2015^{1,2}

| MARKET | ≤7.0% | | 7.1–7.9% | | 8.0–9.0% | | >9.0% | |
|----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | 2014 | 2015 | 2014 | 2015 | 2014 | 2015 | 2014 | 2015 |
| Las Vegas | 92.9% | 92.5% | 83.5% | 86.3% | 80.3% | 81.2% | 77.2% | 77.9% |
| Reno | 94.3 | 93.3 | 89.5 | 90.2 | 79.8 | 83.9 | 75.9 | 81.4 |
| Los Angeles | 93.5 | 94.2 | 89.0 | 90.3 | 84.2 | 84.9 | 82.0 | 83.6 |
| Salt Lake City | 93.3 | 92.3 | 86.6 | 84.0 | 73.2 | 72.4 | 70.9 | 74.7 |
| Nevada | 93.7 | 92.5 | 86.5 | 88.5 | 82.4 | 84.1 | 78.2 | 79.1 |
| NATION | 93.0% | 93.5% | 86.8% | 87.5% | 80.7% | 81.7% | 77.2% | 78.6% |

Data source: IMS Health © 2016

¹ Patients who filled prescriptions for any insulin products may have also filled prescriptions for products in the non-insulin category, and vice versa.

² The A1c test measures the amount of glucose present in the blood during the past 2–3 months. Figures reflect the percentage of Type 2 diabetes patients who have had at least one A1c test in a given year.



PERSISTENCY/READMISSIONS

LONG-ACTING INSULIN PERSISTENCY IS HIGHEST FOR NV TYPE 2 DIABETES PATIENTS

Insulin therapy persistency for Nevada Type 2 diabetes patients who filled prescriptions for long-acting, short-acting, rapid-acting, or mixed insulin in 2015 was greatest in month 12 among those who were dispensed a long-acting insulin (62.9%). The therapy persistency rate for these patients receiving a long-acting insulin was also elevated compared with those who received any of the profiled non-insulin antidiabetic therapies.

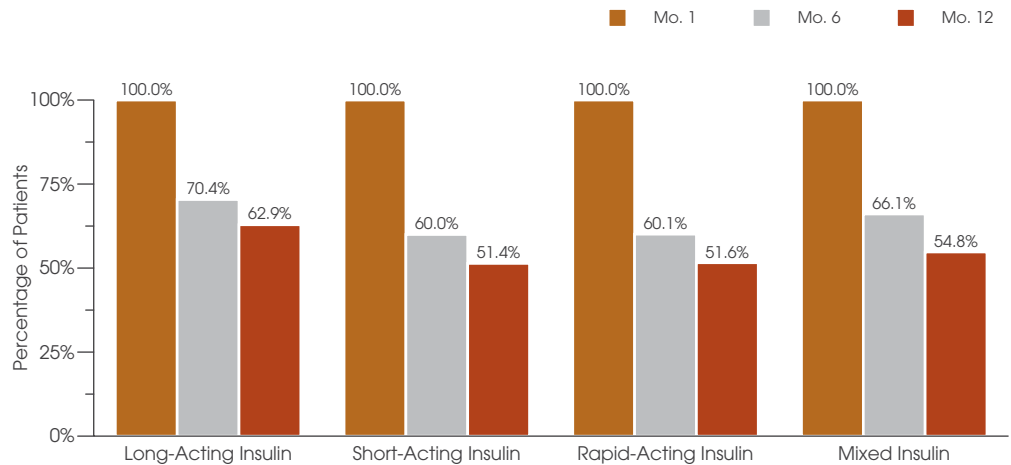
NV TYPE 2 DIABETES PTS. FILLING SGLT-2 INHIBITORS SHOW BETTER PERSISTENCY

Nevada Type 2 diabetes patients who filled a prescription in 2015 for an SGLT-2 inhibitor recorded elevated therapy persistency in month 12 (59.7%) versus those patients dispensed any of the other non-insulin antidiabetic therapies shown.

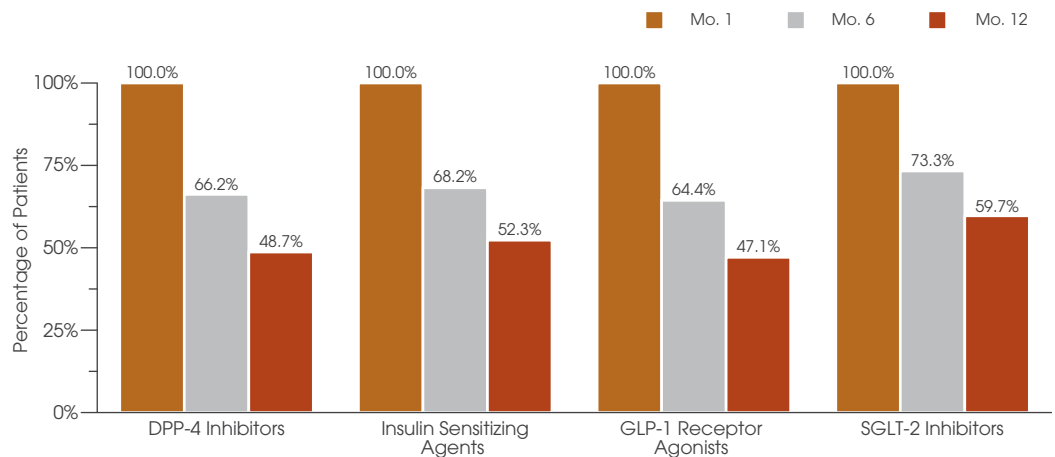
READMIT RATES ARE LOWER FOR PACIFIC TYPE 2 DIABETES PTS. FILLING ANY INSULINS

Three- (7.1%) and 30-day (15.8%) readmission rates for Pacific region Type 2 diabetes patients who were admitted to an inpatient facility between 2013 and 2015 and filled a prescription for any insulin products were below those of their counterparts who were dispensed three non-insulin antidiabetic products (12.7% and 22.7%, respectively).

PERSISTENCY: TYPE 2 DIABETES PATIENTS USING VARIOUS INSULIN PRODUCTS, NEVADA, 2015



PERSISTENCY: TYPE 2 DIABETES PATIENTS USING VARIOUS NON-INSULIN ANTIDIABETIC PRODUCTS, NEVADA, 2015



READMISSION RATES FOR PATIENTS DIAGNOSED WITH TYPE 2 DIABETES, BY TYPE OF THERAPY, 2013-2015^{1,2}

| MARKET | Three-Day Readmissions | | 30-Day Readmissions | |
|----------------|------------------------|---|----------------------|---|
| | Any Insulin Products | Three Non-Insulin Antidiabetic Products | Any Insulin Products | Three Non-Insulin Antidiabetic Products |
| Pacific Region | 7.1% | 12.7% | 15.8% | 22.7% |
| NATION | 8.9% | 12.2% | 18.2% | 22.8% |

Data source: IMS Health © 2016

¹ Figures reflect the percentages of Type 2 diabetes patients who were readmitted to an inpatient facility in the three-year period between 2013 and 2015. These percentages include patients who filled multiple prescriptions. Readmissions are not necessarily due to Type 2 diabetes. Readmissions data were available down to the regional level only.

² Patients who filled prescriptions for any insulin products may have also filled prescriptions for products in the non-insulin category, and vice versa.

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 four 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. All patients tracked are "New-to-Brand," meaning they have not filled a prescription for their cohort product during the six months prior to initiation of therapy on that product.

OTHER CONDITIONS: DISCHARGE DATA



NUMBERS OF INPATIENT CASES PER HOSPITAL PER YEAR, 2013-2014

| MARKET | Hypertension | | Lipid Disorders | | Diabetes w/ Lipid Disorders | |
|----------------|----------------|----------------|-----------------|----------------|-----------------------------|--------------|
| | 2013 | 2014 | 2013 | 2014 | 2013 | 2014 |
| Las Vegas | 3,039.8 | 2,874.6 | 1,765.5 | 1,738.7 | 628.5 | 634.3 |
| Reno | 3,114.3 | 2,814.5 | 1,994.5 | 1,994.8 | 578.3 | 577.0 |
| Los Angeles | 2,457.4 | 2,394.1 | 1,657.6 | 1,651.7 | 662.1 | 667.2 |
| Salt Lake City | 1,755.6 | 1,594.5 | 1,019.3 | 950.4 | 342.1 | 325.3 |
| Nevada | 2,277.3 | 2,208.3 | 1,422.3 | 1,427.7 | 491.9 | 503.1 |
| NATION | 1,851.9 | 1,737.4 | 1,218.9 | 1,170.9 | 433.6 | 419.8 |

NUMBER OF DIABETES WITH LIPID DISORDERS IP CASES RISES MODERATELY IN NV

From 2013 (491.9) to 2014 (503.1), the average number of inpatient (IP) diabetes with lipid disorders cases treated at Nevada hospitals inched up. Likewise, the corresponding number of IP lipid disorders cases in Nevada also grew slightly, to 1,427.7 from 1,422.3.

NUMBERS OF OUTPATIENT CASES PER HOSPITAL PER YEAR, 2013-2014

| MARKET | Hypertension | | Lipid Disorders | | Diabetes w/ Lipid Disorders | |
|----------------|----------------|----------------|-----------------|----------------|-----------------------------|----------------|
| | 2013 | 2014 | 2013 | 2014 | 2013 | 2014 |
| Las Vegas | 6,848.2 | 9,569.5 | 4,163.7 | 4,120.6 | 1,491.0 | 1,309.6 |
| Reno | 12,153.0 | 20,153.8 | 29,334.0 | 19,681.0 | 7,252.5 | 4,844.5 |
| Los Angeles | 7,315.8 | 8,358.8 | 5,310.6 | 5,286.0 | 1,712.7 | 1,782.7 |
| Salt Lake City | 7,985.7 | 9,314.5 | 4,919.6 | 5,412.4 | 1,436.9 | 1,583.7 |
| Nevada | 6,374.4 | 9,994.5 | 8,571.2 | 7,095.6 | 2,382.4 | 1,897.4 |
| NATION | 8,805.3 | 9,012.1 | 6,030.4 | 6,065.2 | 1,859.7 | 1,956.0 |

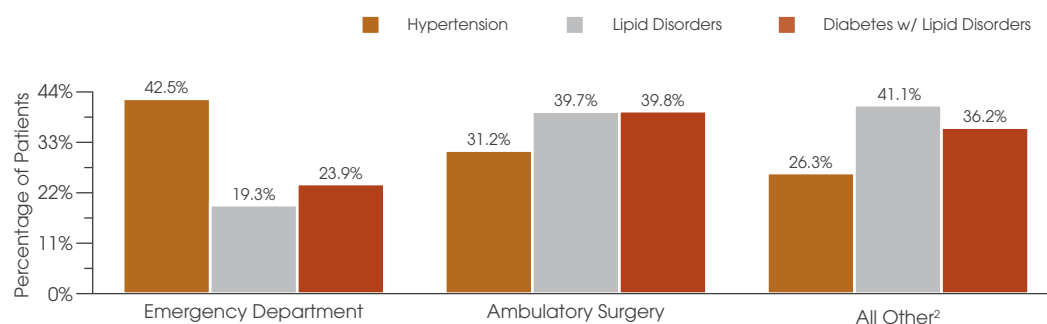
NV MEDICARE IP CHARGES FOR DIABETES WITH LIPID DISORDERS TOP U.S. MEAN

Average Medicare charges per diabetes with lipid disorders IP case in Nevada (\$54,567) were 70.5% higher than those of the nation (\$32,004) in 2014. However, Medicare reimbursement per such case was only 1.8% more in Nevada (\$6,464) than the national benchmark (\$6,348) that year. The disparity between Medicare charges for IP hypertension cases in Nevada and the nation (45.4%) was smaller, though still considerable, yet reimbursement per case in Nevada (\$3,760) was 5.6% less than the nation's (\$3,981).

MEDICARE CHARGES AND REIMBURSEMENT PER HOSPITAL INPATIENT CASE, 2014¹

| MARKET | Hypertension | | Diabetes w/ Lipid Disorders | |
|----------------|-----------------|----------------|-----------------------------|----------------|
| | Charges | Reimbursement | Charges | Reimbursement |
| Las Vegas | \$36,700 | \$3,705 | \$58,574 | \$6,257 |
| Reno | — | — | 21,883 | 5,595 |
| Los Angeles | 32,168 | 4,466 | 46,556 | 8,243 |
| Salt Lake City | 21,126 | 4,466 | 32,459 | 5,628 |
| Nevada | 34,903 | 3,760 | 54,567 | 6,464 |
| NATION | \$24,012 | \$3,981 | \$32,004 | \$6,348 |

DISTRIBUTION OF OUTPATIENT CASES FOR HYPERTENSION, LIPID DISORDERS, AND DIABETES WITH LIPID DISORDERS, BY SETTING, NEVADA, 2014



¹ Charge data are per-case averages for inpatients with a particular diagnosis of interest. Charges may be for treatment related to other diagnoses. Data reflect the total charges billed by the hospital for the entire episode of care, and may include accommodation, pharmacy, laboratory, radiology, and other charges not billed by the physician. Data do not necessarily indicate final amounts paid.

² "All Other" outpatient cases includes any outpatient visit that did not require surgery or arrive as an emergency. Services rendered include, but are not limited to, blood work, wellness visits, etc.

NOTE: Some data were unavailable for the selected markets.

Data source: IMS Health © 2016



OTHER CONDITIONS: DISCHARGE DATA

NUMBERS OF INPATIENT STROKE, AMI, AND HEART FAILURE CASES RISE IN NV

The average numbers of inpatient (IP) stroke, AMI, and heart failure cases treated at Nevada hospitals in 2014 were all greater than in 2013. For example, hospitals treated an average of 255.4 IP stroke cases in Nevada in 2014, compared with 232.8 in 2013, a 9.7% increase. Further, in each profiled Nevada market, average length of stay per stroke case in 2014 exceeded the national mean (4.0 days).

NV OP STROKE CASE COUNT SURPASSES THAT OF NATION

In 2014, Nevada hospitals treated an average of 31.9% more outpatient (OP) stroke cases (523.0) than did hospitals nationally (396.5). In particular, Reno hospitals averaged a notably high number of such cases (1,750.8) that year.

¹ Charge data are per-case averages for inpatients with a particular diagnosis of interest. Charges may be for treatment related to other diagnoses. Data reflect the total charges billed by the hospital for the entire episode of care, and may include accommodation, pharmacy, laboratory, radiology, and other charges not billed by the physician. Data do not necessarily indicate final amounts paid.

NUMBERS OF INPATIENT CASES PER HOSPITAL PER YEAR, 2013-2014

| MARKET | Stroke | | AMI (STEMI) | | Heart Failure | |
|----------------|--------------|--------------|-------------|-------------|---------------|--------------|
| | 2013 | 2014 | 2013 | 2014 | 2013 | 2014 |
| Las Vegas | 245.8 | 271.1 | 75.8 | 78.2 | 921.2 | 972.9 |
| Reno | 331.8 | 356.3 | 136.3 | 126.3 | 1,240.3 | 1,265.8 |
| Los Angeles | 217.8 | 221.8 | 51.4 | 49.4 | 1,019.4 | 1,048.0 |
| Salt Lake City | 154.4 | 147.6 | 53.1 | 60.8 | 555.9 | 557.1 |
| Nevada | 232.8 | 255.4 | 92.6 | 94.5 | 721.4 | 745.0 |
| NATION | 180.3 | 179.5 | 53.9 | 53.2 | 795.0 | 802.7 |

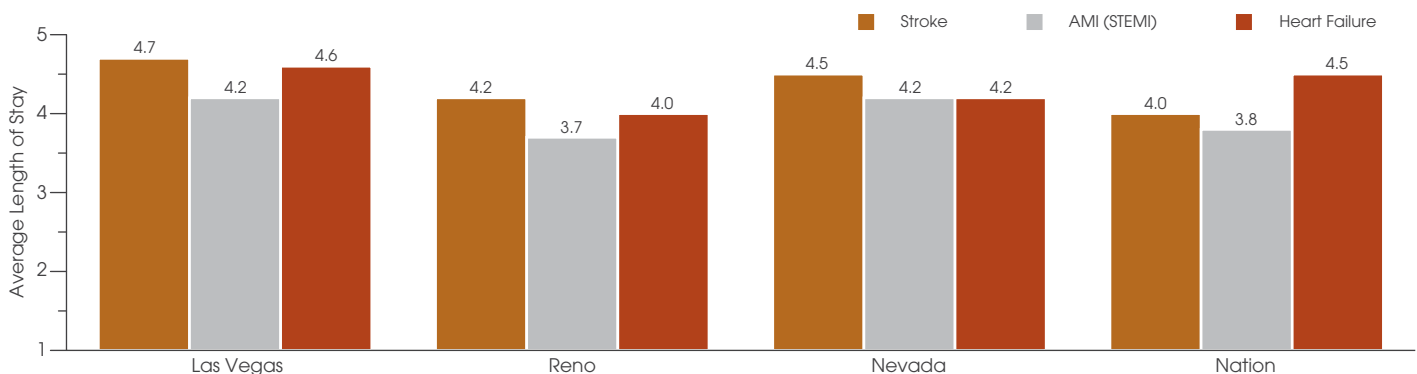
NUMBERS OF OUTPATIENT CASES PER HOSPITAL PER YEAR, 2013-2014

| MARKET | Stroke | | AMI (STEMI) | | Heart Failure | |
|----------------|--------------|--------------|-------------|-------------|----------------|----------------|
| | 2013 | 2014 | 2013 | 2014 | 2013 | 2014 |
| Las Vegas | 187.5 | 279.1 | 6.2 | 9.9 | 530.4 | 921.6 |
| Reno | 531.0 | 1,750.8 | 30.0 | 58.3 | 1,109.5 | 2,084.0 |
| Los Angeles | 177.2 | 209.4 | 9.8 | 12.8 | 700.3 | 839.4 |
| Salt Lake City | 271.1 | 332.4 | 14.8 | 17.8 | 1,100.9 | 1,250.9 |
| Nevada | 198.6 | 523.0 | 10.5 | 18.1 | 548.7 | 1,051.7 |
| NATION | 424.9 | 396.5 | 19.0 | 19.1 | 1,156.3 | 1,170.3 |

MEDICARE CHARGES AND REIMBURSEMENT PER HOSPITAL INPATIENT CASE, 2014¹

| MARKET | Stroke | | AMI (STEMI) | | Heart Failure | |
|----------------|-----------------|----------------|-----------------|-----------------|-----------------|----------------|
| | Charges | Reimbursement | Charges | Reimbursement | Charges | Reimbursement |
| Las Vegas | \$79,593 | \$8,188 | \$162,203 | \$18,050 | \$64,391 | \$8,206 |
| Reno | 48,697 | 7,907 | 95,277 | 14,936 | 38,688 | 7,351 |
| Los Angeles | 63,189 | 10,193 | 149,043 | 20,292 | 67,357 | 11,808 |
| Salt Lake City | 29,996 | 6,230 | 83,331 | 14,752 | 29,257 | 7,440 |
| Nevada | 71,502 | 9,191 | 149,571 | 18,313 | 50,647 | 8,565 |
| NATION | \$37,256 | \$7,152 | \$97,094 | \$15,166 | \$29,735 | \$7,358 |

AVERAGE LENGTH OF STAY (DAYS) PER INPATIENT CASE, 2014



Data source: IMS Health © 2016

OTHER CONDITIONS: DISCHARGE DATA



NUMBERS OF INPATIENT CASES PER HOSPITAL PER YEAR, 2014

| MARKET | Diabetes w/ Depression | Depression | Diabetes w/ Peripheral Vascular Disease |
|----------------|------------------------|--------------|---|
| Las Vegas | 58.3 | 254.0 | 31.8 |
| Reno | 59.5 | 333.0 | 26.0 |
| Los Angeles | 112.9 | 560.6 | 89.9 |
| Salt Lake City | 47.5 | 481.6 | 9.7 |
| Nevada | 66.9 | 288.4 | 32.0 |
| NATION | 61.0 | 338.0 | 29.8 |

INPATIENT DIABETES WITH DEPRESSION CASE COUNTS IN NEVADA TOP U.S. MEAN

In 2014, the average number of inpatient diabetes with depression cases treated at Nevada hospitals (66.9) was greater than that of hospitals nationwide (61.0). Nevada hospitals also averaged more inpatient cases of diabetes with peripheral vascular disease (32.0) than did their national counterparts (29.8).

NUMBERS OF OUTPATIENT CASES PER HOSPITAL PER YEAR, 2014

| MARKET | Diabetes w/ Depression | Depression | Diabetes w/ Peripheral Vascular Disease |
|----------------|------------------------|--------------|---|
| Las Vegas | 584.6 | 639.2 | 84.6 |
| Los Angeles | 690.1 | 808.9 | 107.6 |
| Salt Lake City | 774.7 | 753.5 | 61.8 |
| Nevada | 1,126.9 | 1,231.2 | 60.2 |
| NATION | 745.4 | 806.7 | 88.1 |

NV HOSPITALS TREAT MORE OP DIABETES WITH DEPRESSION CASES

Across the state of Nevada in 2014, hospitals treated, on average, 1,126.9 outpatient (OP) cases of diabetes with depression, compared with 745.4 nationally, and 1,231.2 OP depression cases, versus 806.7 for the nation.

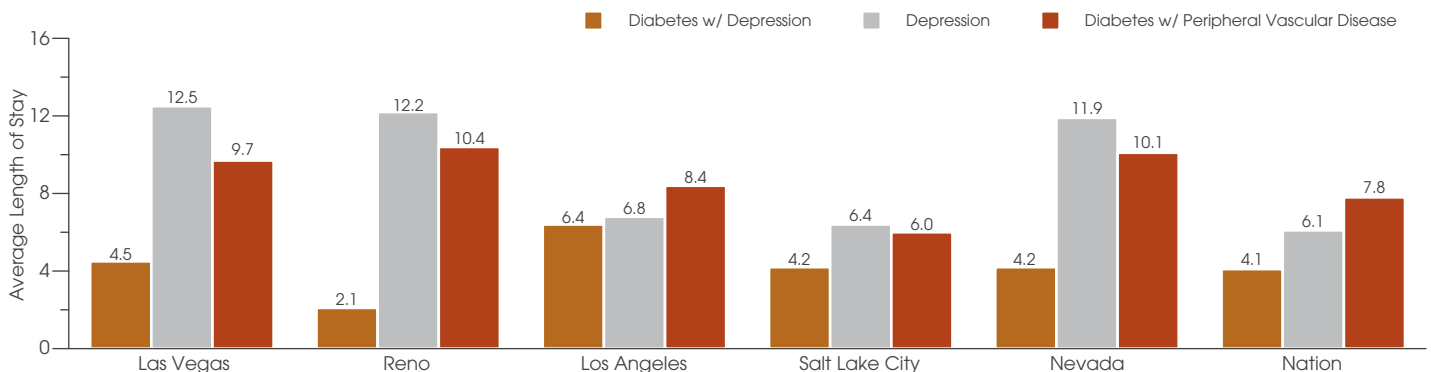
MEDICARE CHARGES AND REIMBURSEMENT PER HOSPITAL INPATIENT CASE, 2014¹

| MARKET | Depression | | Diabetes w/ Peripheral Vascular Disease | |
|----------------|-----------------|----------------|---|-----------------|
| | Charges | Reimbursement | Charges | Reimbursement |
| Las Vegas | \$50,622 | \$13,903 | \$140,678 | \$15,250 |
| Reno | 53,214 | 8,083 | 94,158 | 16,254 |
| Los Angeles | 33,796 | 9,844 | 97,620 | 13,840 |
| Salt Lake City | 24,177 | 6,522 | 67,772 | 14,162 |
| Nevada | 44,723 | 11,078 | 131,374 | 15,451 |
| NATION | \$24,542 | \$7,419 | \$84,262 | \$14,991 |

¹ Charge data are per-case averages for inpatients with a particular diagnosis of interest. Charges may be for treatment related to other diagnoses. Data reflect the total charges billed by the hospital for the entire episode of care, and may include accommodation, pharmacy, laboratory, radiology, and other charges not billed by the physician. Data do not necessarily indicate final amounts paid.

NOTE: Some data were unavailable for the selected markets.

AVERAGE LENGTH OF STAY (DAYS) PER INPATIENT DEPRESSION, DIABETES WITH DEPRESSION, AND DIABETES WITH PERIPHERAL VASCULAR DISEASE CASE, 2014



Data source: IMS Health © 2016



OTHER CONDITIONS: DISCHARGE DATA

IP CHRONIC KIDNEY DISEASE STAGE 3 CASE COUNT GROWS AT NV HOSPITALS

From 2013 (174.5) to 2014 (189.0), the average number of inpatient (IP) chronic kidney disease stage 3 cases treated at Nevada hospitals increased 8.3%. In Las Vegas, the average number of such cases climbed 14.2%, while nationally, the inpatient case count for this diagnosis rose 7.5%. Meanwhile, Nevada hospitals averaged 103.1 inpatient chronic kidney disease stage 4 cases in 2014, compared with 96.2 at hospitals nationwide.

HIGH SHARES OF NEVADA OP CHRONIC KIDNEY DISEASE CASES ARE TREATED IN ASCs

In 2014, 31.0% of Nevada outpatient (OP) chronic kidney disease stage 3 cases and 40.3% of the state's stage 4 cases were treated in the ambulatory surgery center (ASC) setting, compared with 9.0% and 7.7%, respectively, for similar cases nationally.

NUMBERS OF INPATIENT CASES PER HOSPITAL PER YEAR, 2013-2014

| MARKET | Chronic Kidney Disease Stage 2 | | Chronic Kidney Disease Stage 3 | | Chronic Kidney Disease Stage 4 | |
|----------------|--------------------------------|------|--------------------------------|-------|--------------------------------|-------|
| | 2013 | 2014 | 2013 | 2014 | 2013 | 2014 |
| Las Vegas | 30.6 | 30.6 | 162.8 | 185.9 | 98.6 | 117.7 |
| Reno | 49.7 | 36.0 | 300.0 | 312.3 | 112.0 | 115.5 |
| Los Angeles | 44.9 | 42.5 | 281.6 | 306.0 | 112.2 | 117.0 |
| Salt Lake City | 11.4 | 10.3 | 61.9 | 71.1 | 66.4 | 65.6 |
| Nevada | 34.0 | 32.4 | 174.5 | 189.0 | 100.1 | 103.1 |
| NATION | 24.2 | 24.3 | 182.8 | 196.5 | 95.5 | 96.2 |

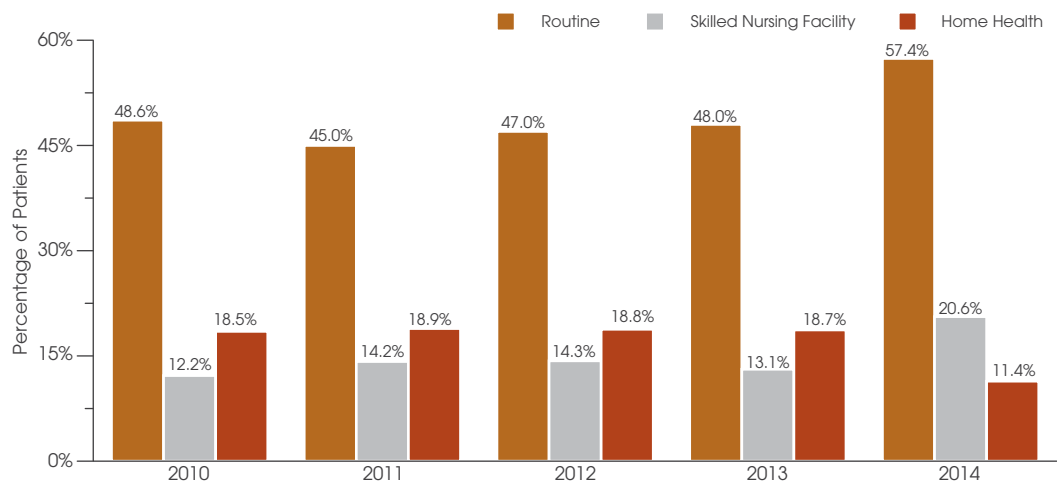
NUMBERS OF OUTPATIENT CASES PER HOSPITAL PER YEAR, 2013-2014

| MARKET | Chronic Kidney Disease Stage 2 | | Chronic Kidney Disease Stage 3 | | Chronic Kidney Disease Stage 4 | |
|----------------|--------------------------------|-------|--------------------------------|---------|--------------------------------|-------|
| | 2013 | 2014 | 2013 | 2014 | 2013 | 2014 |
| Las Vegas | 36.8 | 33.5 | 241.7 | 334.2 | 51.9 | 77.0 |
| Reno | 102.5 | 253.8 | 811.5 | 3,043.3 | 220.0 | 468.5 |
| Los Angeles | 65.2 | 121.4 | 336.5 | 534.8 | 97.3 | 133.2 |
| Salt Lake City | 43.7 | 53.6 | 286.4 | 453.8 | 134.9 | 154.2 |
| Nevada | 37.9 | 81.5 | 271.5 | 827.8 | 86.0 | 187.8 |
| NATION | 63.4 | 68.7 | 518.4 | 524.1 | 192.0 | 176.6 |

DISTRIBUTION OF OUTPATIENT CHRONIC KIDNEY DISEASE CASES, BY SETTING, 2014

| MARKET | Emergency Department | | Ambulatory Surgery | | All Other Outpatient Cases ² | |
|----------------|----------------------|---------|--------------------|---------|---|---------|
| | Stage 3 | Stage 4 | Stage 3 | Stage 4 | Stage 3 | Stage 4 |
| Las Vegas | 18.0% | 17.3% | 19.5% | 27.1% | 62.5% | 55.6% |
| Reno | 3.3 | 4.9 | 35.0 | 55.7 | 61.7 | 39.5 |
| Los Angeles | 43.3 | 26.2 | 12.1 | 10.3 | 44.7 | 63.5 |
| Salt Lake City | 18.3 | 16.1 | 12.3 | 11.4 | 69.4 | 72.5 |
| Nevada | 6.6 | 7.7 | 31.0 | 40.3 | 62.5 | 52.0 |
| NATION | 13.7% | 11.0% | 9.0% | 7.7% | 77.3% | 81.3% |

PERCENTAGE OF INPATIENT CHRONIC KIDNEY DISEASE STAGE 4 CASES, BY DISCHARGE DESTINATION, NEVADA, 2010-2014



Data source: IMS Health © 2016

¹ Charge data are per-case averages for inpatients with a particular diagnosis of interest. Charges may be for treatment related to other diagnoses. Data reflect the total charges billed by the hospital for the entire episode of care, and may include accommodation, pharmacy, laboratory, radiology, and other charges not billed by the physician. Data do not necessarily indicate final amounts paid.

² "All other outpatient cases" includes any outpatient visit that did not require surgery or arrive as an emergency. Services rendered include, but are not limited to, lab work and wellness visits, etc.

NOTE: Stage 2 chronic kidney disease (Dx 858.2) is mild. Stage 3 (Dx 858.3) is moderate. Stage 4 (Dx 858.4) is severe.

Some data were unavailable for Las Vegas and Salt Lake City. Medicare charge and reimbursement data were unavailable for chronic kidney disease, stage 3 and 4.

OTHER CONDITIONS: DISCHARGE DATA



NUMBER OF INPATIENT OBESITY CASES PER HOSPITAL PER YEAR, 2010-2014

| MARKET | 2010 | 2011 | 2012 | 2013 | 2014 |
|----------------|--------------|--------------|--------------|--------------|--------------|
| Las Vegas | 420.9 | 358.5 | 359.3 | 378.6 | 415.7 |
| Reno | 411.0 | 407.8 | 453.8 | 424.0 | 428.0 |
| Los Angeles | 505.2 | 490.1 | 476.3 | 471.1 | 488.6 |
| Salt Lake City | 371.7 | 350.1 | 404.8 | 361.6 | 355.1 |
| Nevada | 344.6 | 282.4 | 307.1 | 318.7 | 339.0 |
| NATION | 269.6 | 272.7 | 280.1 | 284.7 | 288.6 |

NEVADA OUTPACES NATION IN NUMBER OF INPATIENT OBESITY CASES PER HOSPITAL

In each year from 2010 to 2014, Nevada hospitals recorded more inpatient (IP) obesity cases per facility than their counterparts nationally. For example, in 2014, Nevada hospitals treated an average of 339.0 such cases, compared with 288.6 across the nation.

Hospitals in Las Vegas (415.7) and Reno (428.0) treated even more inpatient obesity cases that year.

NUMBER OF OUTPATIENT OBESITY CASES PER HOSPITAL PER YEAR, 2010-2014

| MARKET | 2010 | 2011 | 2012 | 2013 | 2014 |
|----------------|--------------|--------------|--------------|--------------|--------------|
| Las Vegas | 408.5 | 684.6 | 659.4 | 473.9 | 732.0 |
| Reno | 478.6 | 1,003.6 | 1,637.0 | 1,162.0 | 2,298.0 |
| Los Angeles | 504.0 | 631.8 | 759.1 | 690.1 | 936.2 |
| Salt Lake City | 572.9 | 654.4 | 982.8 | 987.4 | 1,139.5 |
| Nevada | 327.3 | 594.8 | 691.6 | 439.5 | 831.0 |
| NATION | 434.9 | 501.0 | 652.9 | 707.6 | 792.5 |

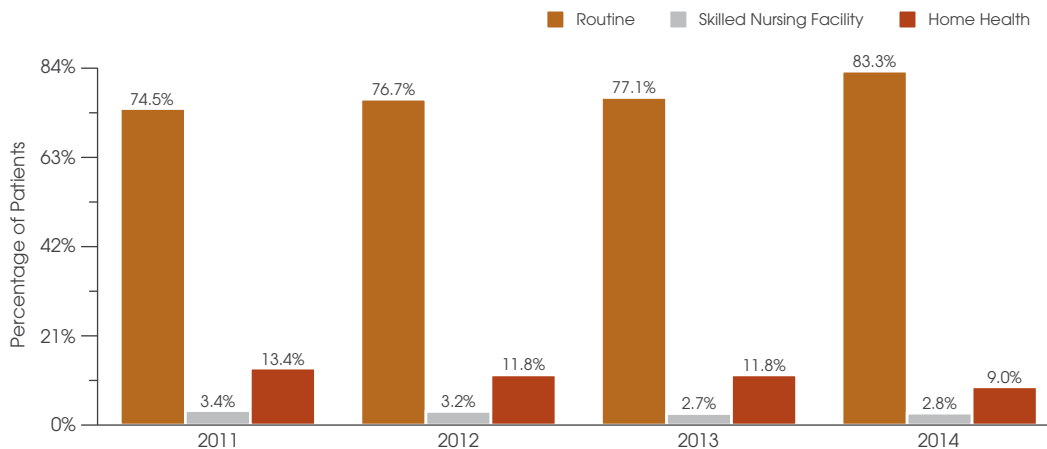
OUTPATIENT OBESITY CASE COUNTS CLIMB ACROSS NV, EXCEED NATIONAL MEAN

From 2010 (327.3) to 2014 (831.0), the number of outpatient (OP) obesity cases treated per Nevada hospital jumped 153.9%, and surpassed the national average (792.5) in 2014. Nevada hospitals also topped the national benchmark in 2011 (594.8 cases versus 501.0) and 2012 (691.6 versus 652.9). In each year during this period, Reno recorded more outpatient obesity cases than the other profiled Nevada markets, and notably so from 2011 to 2014.

TOTAL CHARGES PER HOSPITAL INPATIENT OBESITY CASE, 2010-2014¹

| MARKET | 2010 | 2011 | 2012 | 2013 | 2014 |
|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Las Vegas | \$44,247 | \$47,455 | \$110,973 | — | \$49,859 |
| Reno | — | 35,819 | — | — | — |
| Los Angeles | 45,123 | 54,281 | 54,475 | \$46,140 | 50,308 |
| Salt Lake City | — | — | 47,521 | 56,201 | 61,827 |
| Nevada | 44,247 | 43,749 | 110,973 | — | 49,859 |
| NATION | \$41,605 | \$42,015 | \$43,699 | \$46,642 | \$45,602 |

PERCENTAGE OF INPATIENT OBESITY CASES, BY DISCHARGE DESTINATION, NEVADA, 2011-2014



¹ Charge data are per-case averages for inpatients with a particular diagnosis of interest. Charges may be for treatment related to other diagnoses. Data reflect the total charges billed by the hospital for the entire episode of care, and may include accommodation, pharmacy, laboratory, radiology, and other charges not billed by the physician. Data do not necessarily indicate final amounts paid.

NOTE: Some data were unavailable for the selected markets. Medicare charge and reimbursement data were unavailable for obesity.

Data source: IMS Health © 2016

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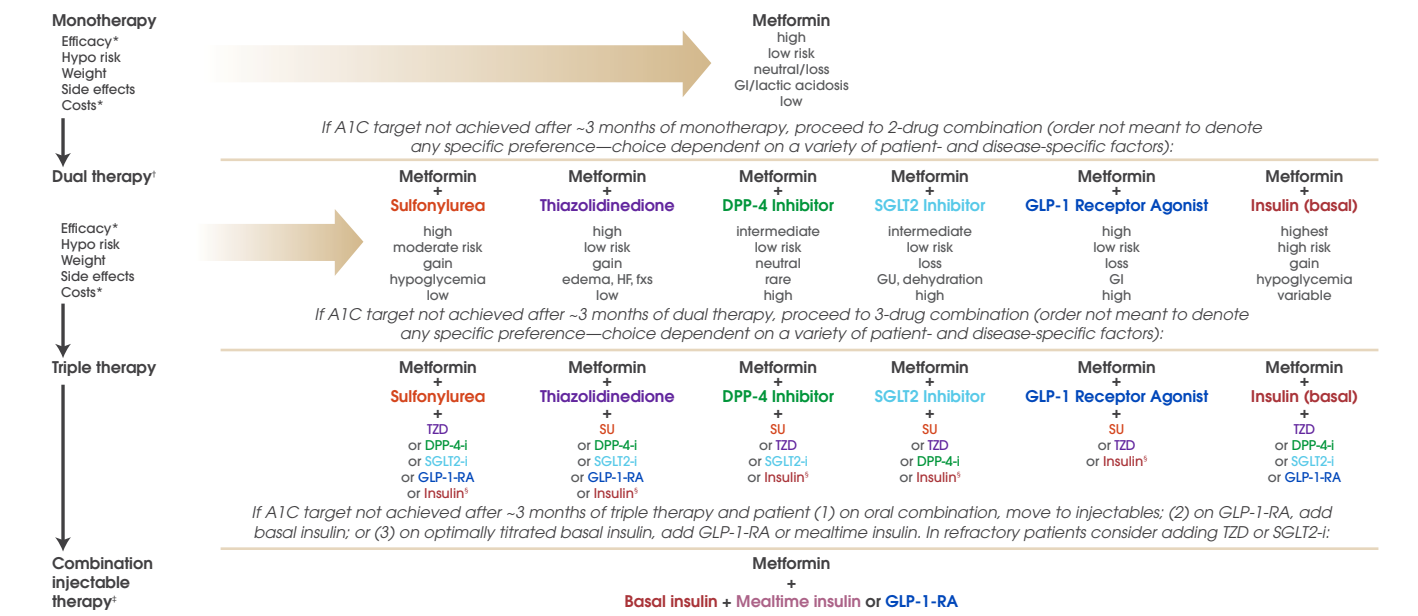
To serve as the voice for Northern Nevada employers and their employees in all matters related to health, health care and health insurance by providing leadership, information and education for the betterment of the entire community.

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Adapted From the 2015 ADA/EASD Position Statement

Healthy eating, weight control, increased physical activity, and diabetes education



Antihyperglycemic therapy in Type 2 diabetes: general recommendations (see Reference). The order in the chart was determined by historical availability and the route of administration, with injectables to the right; it is not meant to denote any specific preference. Potential sequences of antihyperglycemic therapy for patients with Type 2 diabetes are displayed, with the usual transition moving vertically from top to bottom (although horizontal movement within therapy stages is also possible, depending on the circumstances). DPP-4-i, DPP-4 inhibitor; fxs, fractures; GI, gastrointestinal; GLP-1-RA, GLP-1 receptor agonist; GU, genitourinary; HF, heart failure; Hypo, hypoglycemia; SGLT2-i, SGLT2 inhibitor; SU, sulfonyleurea; TZD, thiazolidinedione. *See Reference for description of efficacy categorization. † Consider starting at this stage when A1C is ≥9%. ‡ Consider starting at this stage when blood glucose is ≥300–350 mg/dL (16.7–19.4 mmol/L) and/or A1C is ≥10–12%, especially if symptomatic or catabolic features are present, in which case basal insulin + mealtime insulin is the preferred initial regimen. § Usually a basal insulin (NPH, glargine, detemir, degludec). Adapted with permission from Inzucchi et al. (see Reference).

Reference: Inzucchi, S. E., et al. (2015). Management of Hyperglycemia in Type 2 Diabetes, 2015: A Patient-Centered Approach: Update to a Position Statement of the American Diabetes Association (ADA) and the European Association for the Study of Diabetes (EASD). Diabetes Care. Retrieved from <http://care.diabetesjournals.org/content/38/1/140.full.pdf+html>

NEVADA DIABETES AND CARDIOVASCULAR DISEASE REPORT 2016

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