

COLORADO TYPE 2 DIABETES REPORT 2007

An Analysis Featuring
Demographic, Utilization, Charges
and Pharmacotherapy Data



Colorado Business Group on Health



Presented by
sanofi aventis
in conjunction with the
Colorado Business Group on Health

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Introduction

The Colorado Business Group on Health (CBGH) is pleased to present the **Colorado Type 2 Diabetes Report** for 2007, an overview of demographic, financial, utilization and pharmacotherapy measures for Type 2 diabetes patients in key local markets in the state of Colorado. The overview also provides state and national benchmarks that can help providers and employers identify better opportunities to serve the needs of their patients. All data are drawn from the Therapeutics Trends Summary™ (TTS), part of the sanofi-aventis **Managed Care Digest Series®**.

The **Colorado Type 2 Diabetes Report** for 2007 helps CBGH to fulfill its mission to help local employers play an active and enthusiastic role in collaboration with health plans, providers and purchasers; and to be a catalyst in promoting cost-effective delivery of

quality health care to the benefit of the community.

This third edition features a number of examples of the kinds of patient-level, disease-specific data on Type 2 diabetes that can be provided by CBGH using the TTS resource. CBGH 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 diabetes—translating to 5.7% of the U.S. population—have the Type 2 variety.

The data in this report (covering 2004 through 2006) were gathered by Verispan LLC, Yardley, Pa., a leading health care consulting and marketing research firm. Verispan maintains the largest patient-centric database in the health care industry.

Publication Notes:

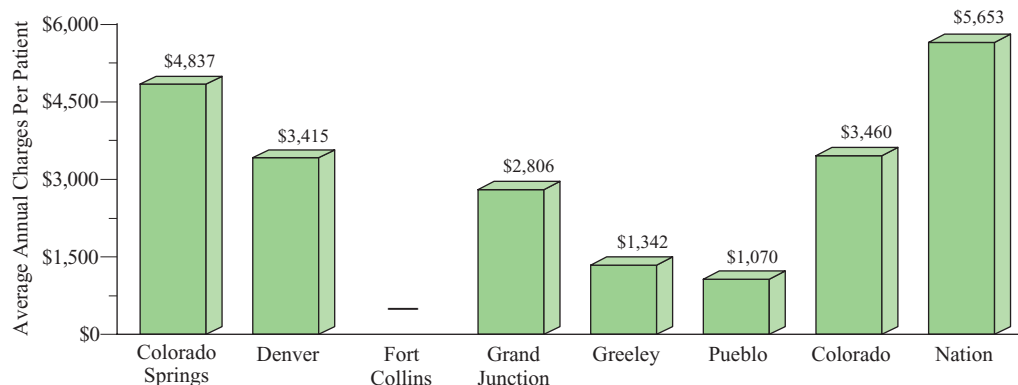
Professional charges are those generated by the providers delivering care to Type 2 diabetes patients in various settings.

Hospital Charge figures reflect the charges generated for Type 2 diabetes patients by the facilities that delivered care.

Commercial Insurance payers include commercial insurance companies, Blue Cross/Blue Shield, HMOs, PPOs, point-of-service plans and exclusive provider organizations.

Verispan did not provide Hospital Charge data for the Colorado Springs and Greeley MSAs.

AVERAGE ANNUAL PROFESSIONAL INPATIENT CHARGES FOR TYPE 2 DIABETES PATIENTS, 2006



Data source: Verispan LLC © 2007

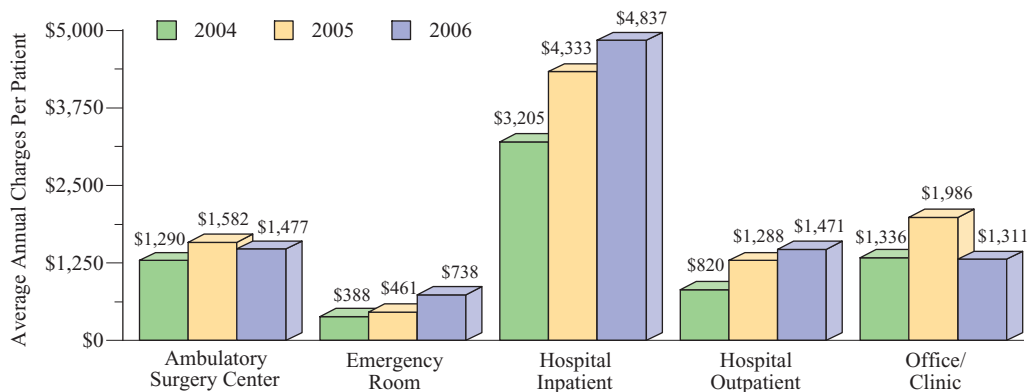
DEMOGRAPHICS: AGE AND GENDER

AGE GROUP	Percentage of Type 2 Diabetes Patients		
	2004	2005	2006
0-17	0.4%	0.4%	0.4%
18-35	4.1	4.9	4.5
36-64	67.8	67.6	58.4
65-79	21.7	21.5	29.6
80+	6.1	5.6	7.2
GENDER			
Male	38.2%	37.5%	36.8%
Female	61.8	62.5	63.2

DEMOGRAPHICS: COMORBIDITIES AND COMPLICATIONS

COMORBIDITIES	Percentage of Type 2 Diabetes Patients		
	2004	2005	2006
0	30.2%	31.8%	34.9%
1	24.0	24.4	24.1
2	31.7	30.7	29.2
>2	14.1	13.1	11.8
COMPLICATIONS			
0	50.4%	50.5%	50.0%
1	32.2	33.0	33.6
2	11.9	12.3	12.1
>2	5.6	4.3	4.4

AVERAGE ANNUAL PROFESSIONAL CHARGES FOR TYPE 2 DIABETES PATIENTS



AVERAGE ANNUAL PROFESSIONAL CHARGES FOR TYPE 2 DIABETES PATIENTS, BY PAYER

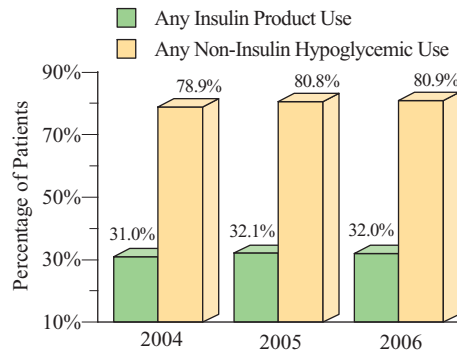
	Commercial Insurance			Medicaid			Medicare			Government		
	2004	2005	2006	2004	2005	2006	2004	2005	2006	2004	2005	2006
Hospital Inpatient	\$3,204	\$4,249	\$5,136	—	\$4,597	\$4,477	\$3,255	\$4,981	\$4,279	\$1,232	\$2,288	—
Hospital Outpatient	680	1,112	1,352	\$4,802	—	3,289	2,293	4,415	1,872	4,485	1,659	—
Office / Clinic	958	1,650	1,360	1,322	762	540	2,057	1,930	—	3,310	5,897	\$3,224

UTILIZATION: PERCENTAGE OF TYPE 2 DIABETES PATIENTS, BY SERVICE

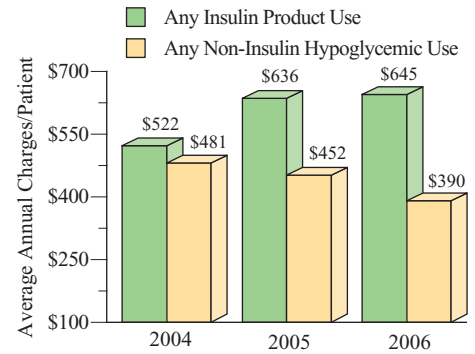
	A1C Test	Serum Cholesterol	Urine Glucose Test	Ophthalmologic Examination
2004	78.3%	84.0%	88.8%	70.8%
2005	79.7	85.3	88.3	73.2
2006	77.7	84.6	90.5	71.5

Data source: Verispan LLC © 2007

PHARMACOTHERAPY: PERCENTAGE OF PATIENTS, BY TYPE OF DRUG THERAPY



PHARMACOTHERAPY: AVERAGE ANNUAL CHARGES BY TYPE OF DRUG THERAPY



DENVER

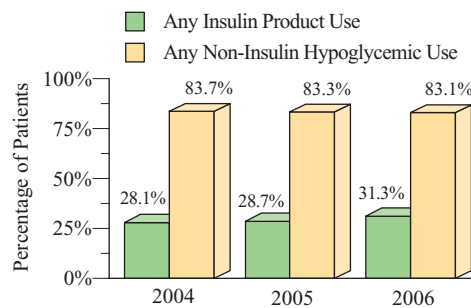
DEMOGRAPHICS: AGE AND GENDER

AGE GROUP	Percentage of Type 2 Diabetes Patients		
	2004	2005	2006
0-17	0.5%	0.5%	0.6%
18-35	4.5	5.0	4.1
36-64	64.6	62.0	55.7
65-79	23.7	25.0	29.9
80+	6.7	7.6	9.8
GENDER			
Male	42.2%	40.3%	41.5%
Female	57.8	59.7	58.5

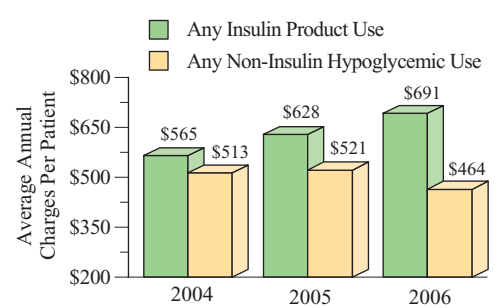
DEMOGRAPHICS: COMORBIDITIES AND COMPLICATIONS

COMORBIDITIES	Percentage of Type 2 Diabetes Patients		
	2004	2005	2006
0	27.5%	32.2%	36.4%
1	26.4	23.7	22.7
2	34.0	32.4	31.1
>2	12.1	11.7	9.8
COMPLICATIONS			
0	56.8%	56.6%	57.2%
1	29.8	29.8	30.3
2	10.2	10.3	9.6
>2	3.2	3.4	2.9

PHARMACOTHERAPY: PERCENTAGE OF PATIENTS, BY TYPE OF DRUG THERAPY



PHARMACOTHERAPY: AVERAGE ANNUAL CHARGES BY TYPE OF DRUG THERAPY

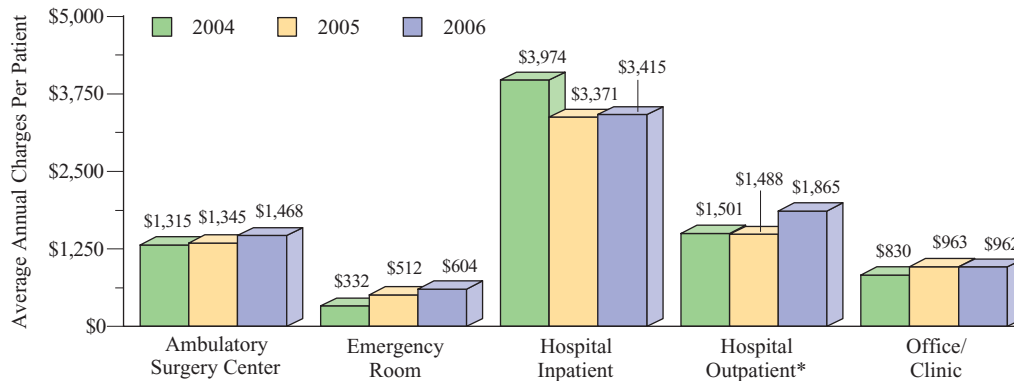


UTILIZATION: PERCENTAGE OF TYPE 2 DIABETES PATIENTS, BY SERVICE

	A1C Test	Serum Cholesterol	Urine Glucose Test	Ophthalmologic Examination
2004	79.2%	85.0%	88.5%	69.4%
2005	79.3	84.9	88.1	68.6
2006	77.9	83.3	88.4	68.4

Data source: Verispan LLC © 2007

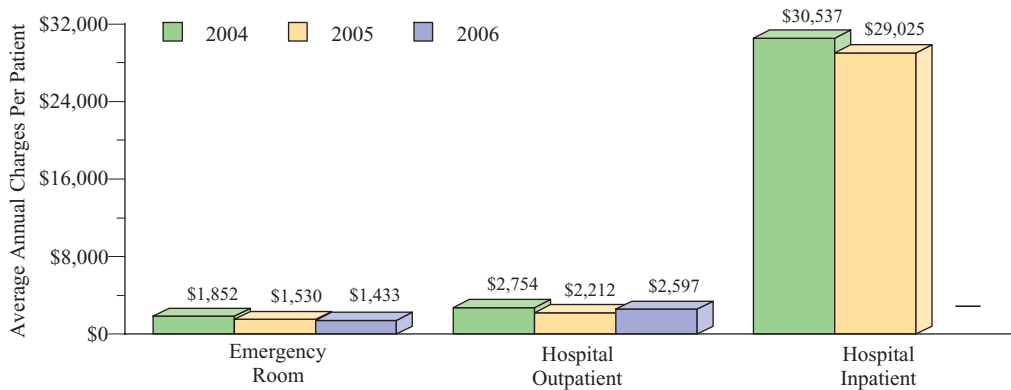
AVERAGE ANNUAL PROFESSIONAL CHARGES FOR TYPE 2 DIABETES PATIENTS



AVERAGE ANNUAL PROFESSIONAL CHARGES FOR TYPE 2 DIABETES PATIENTS, BY PAYER

	Commercial Insurance			Medicaid			Medicare			Government		
	2004	2005	2006	2004	2005	2006	2004	2005	2006	2004	2005	2006
Ambulatory Surgery	\$926	\$993	\$1,119	\$1,534	\$2,688	\$2,662	\$2,566	\$2,369	\$2,650	—	—	\$1,103
Hospital Inpatient	3,392	3,218	2,884	4,210	3,047	3,045	4,154	3,297	3,722	\$3,467	\$2,857	2,868
Hospital Outpatient	1,470	1,430	1,886	—	1,614	1,497	1,587	1,485	1,767	—	1,839	1,300

AVERAGE ANNUAL HOSPITAL CHARGES FOR TYPE 2 DIABETES PATIENTS*



AVERAGE ANNUAL HOSPITAL CHARGES FOR TYPE 2 DIABETES PATIENTS, BY PAYER*

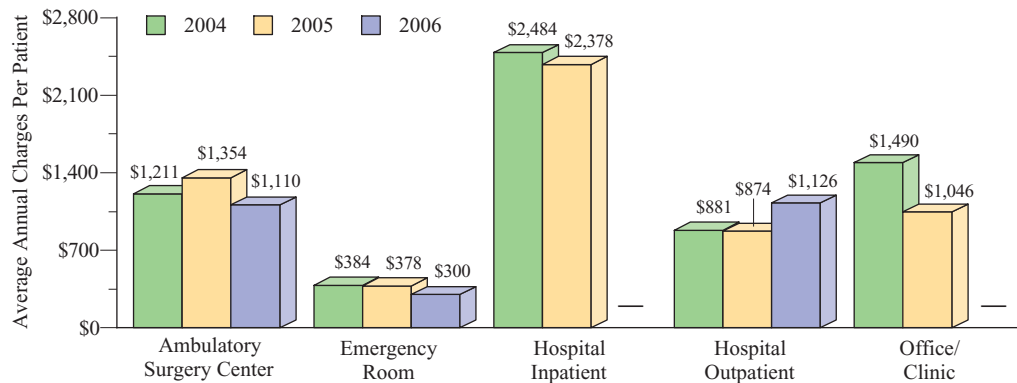
	Commercial Insurance			Medicaid			Medicare			Government		
	2004	2005	2006	2004	2005	2006	2004	2005	2006	2004	2005	2006
Emergency Room	\$1,433	\$1,153	\$1,120	\$1,832	\$1,368	\$1,329	\$2,230	\$1,812	\$1,655	\$1,464	\$2,641	\$1,336
Hospital Outpatient	2,191	1,717	2,119	2,673	2,339	2,684	3,472	2,564	3,174	1,449	2,644	2,152
Hospital Inpatient	23,179	18,211	32,025	58,737	68,297	—	30,067	23,416	34,651	19,285	—	—

Data source: Verispan LLC © 2007

DEMOGRAPHICS: AGE AND GENDER			
AGE GROUP	Percentage of Type 2 Diabetes Patients		
	2004	2005	2006
0-17	0.9%	0.3%	0.3%
18-35	4.2	4.4	5.2
36-64	61.9	62.5	54.9
64-79	25.2	24.8	29.3
80+	7.7	8.1	10.2
GENDER			
Male	41.9%	41.4%	41.7%
Female	58.1	58.6	58.3

DEMOGRAPHICS: COMORBIDITIES AND COMPLICATIONS			
COMORBIDITIES	Percentage of Type 2 Diabetes Patients		
	2004	2005	2006
0	32.4%	36.6%	44.7%
1	23.1	21.2	20.0
2	31.6	30.3	27.5
>2	13.0	11.9	7.9
COMPLICATIONS			
0	53.3%	57.5%	62.5%
1	32.0	29.3	27.1
2	11.8	11.2	8.5
>2	2.9	2.0	1.9

AVERAGE ANNUAL PROFESSIONAL CHARGES FOR TYPE 2 DIABETES PATIENTS



AVERAGE ANNUAL PROFESSIONAL CHARGES FOR TYPE 2 DIABETES PATIENTS, BY PAYER*

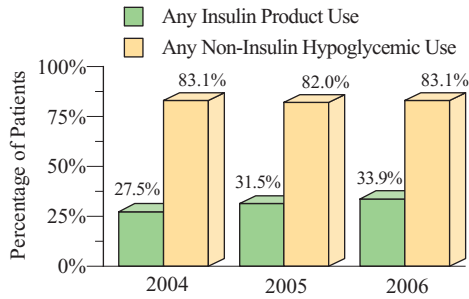
	Commercial Insurance			Medicaid			Medicare			Government		
	2004	2005	2006	2004	2005	2006	2004	2005	2006	2004	2005	2006
Hospital Inpatient	\$1,995	\$2,306	\$1,473	\$4,140	\$2,154	—	\$2,648	\$2,382	—	—	\$1,463	—
Hospital Outpatient	764	735	979	1,241	1,083	\$1,496	1,011	1,191	\$1,150	3,218	2,450	\$2,746
Office / Clinic	1,276	796	566	594	766	606	1,928	1,587	—	1,174	434	—

AVERAGE ANNUAL HOSPITAL CHARGES FOR TYPE 2 DIABETES PATIENTS, BY PAYER TYPE, 2006

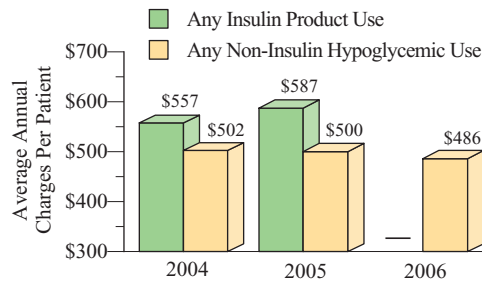
	Managed Care/ Commercial Insurance	Medicaid	Medicare	Government	OVERALL AVERAGE
Emergency Room	\$982	\$2,150	\$2,183	\$1,195	\$1,811
Hospital Outpatient	1,884	3,925	3,923	3,653	3,164
Hospital Inpatient	28,442	34,754	46,310	39,030	41,126

Data source: Verispan LLC © 2007

PHARMACOTHERAPY: PERCENTAGE OF PATIENTS, BY TYPE OF DRUG THERAPY



PHARMACOTHERAPY: AVERAGE ANNUAL CHARGES BY TYPE OF DRUG THERAPY



UTILIZATION: PERCENTAGE OF TYPE 2 DIABETES PATIENTS, BY SERVICE

	A1C Test	Serum Cholesterol	Urine Glucose Test	Ophthalmologic Examination
2004	76.4%	82.7%	86.7%	73.2%
2005	77.9	83.3	85.2	77.9
2006	78.0	81.9	87.5	80.8

GRAND JUNCTION

DEMOGRAPHICS: AGE AND GENDER

AGE GROUP	Percentage of Type 2 Diabetes Patients		
	2004	2005	2006
18-35	1.6%	1.1%	0.3%
36-64	42.1	38.3	36.7
64-79	46.2	46.4	47.6
80+	10.0	14.2	15.4
GENDER			
Male	50.0%	51.3%	50.9%
Female	50.0	48.7	49.1

DEMOGRAPHICS: COMORBIDITIES AND COMPLICATIONS

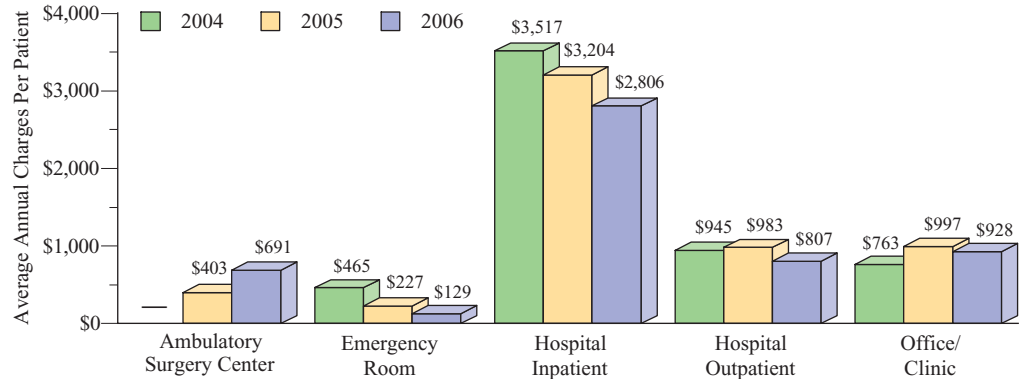
COMORBIDITIES	Percentage of Type 2 Diabetes Patients		
	2004	2005	2006
0	23.7%	25.9%	41.5%
1	26.1	25.8	20.7
2	31.6	32.7	26.5
>2	18.7	15.6	11.4
COMPLICATIONS			
0	34.5%	34.0%	36.4%
1	47.0	51.5	48.0
2	13.9	10.9	11.8
>2	4.7	3.6	3.7

UTILIZATION: PERCENTAGE OF TYPE 2 DIABETES PATIENTS, BY SERVICE

	A1C Test	Serum Cholesterol	Urine Glucose Test	Ophthalmologic Examination
2004	75.7%	84.6%	89.7%	64.0%
2005	79.8	79.8	93.0	72.1
2006	78.0	88.0	86.0	63.0

Data source: Verispan LLC © 2007

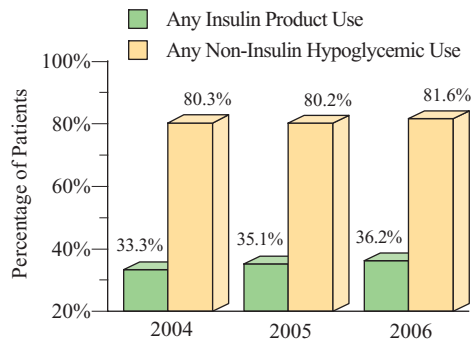
AVERAGE ANNUAL PROFESSIONAL CHARGES FOR TYPE 2 DIABETES PATIENTS



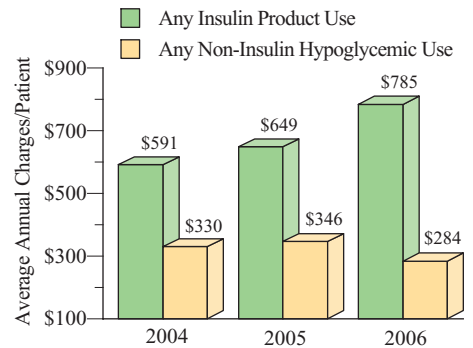
AVERAGE ANNUAL PROFESSIONAL CHARGES FOR TYPE 2 DIABETES PATIENTS, BY PAYER*

	Commercial Insurance			Medicaid			Medicare			Government		
	2004	2005	2006	2004	2005	2006	2004	2005	2006	2004	2005	2006
Hospital Inpatient	\$3,101	\$3,258	\$2,422	\$2,853	\$1,404	\$4,354	\$3,612	\$3,121	\$3,015	—	—	—
Hospital Outpatient	804	882	761	2,170	—	1,300	908	1,138	858	—	—	—
Office / Clinic	682	941	880	1,300	—	1,453	772	988	933	520	773	206

PHARMACOTHERAPY: PERCENTAGE OF PATIENTS, BY TYPE OF DRUG THERAPY



PHARMACOTHERAPY: AVERAGE ANNUAL CHARGES BY TYPE OF DRUG THERAPY



Data source: Verispan LLC © 2007

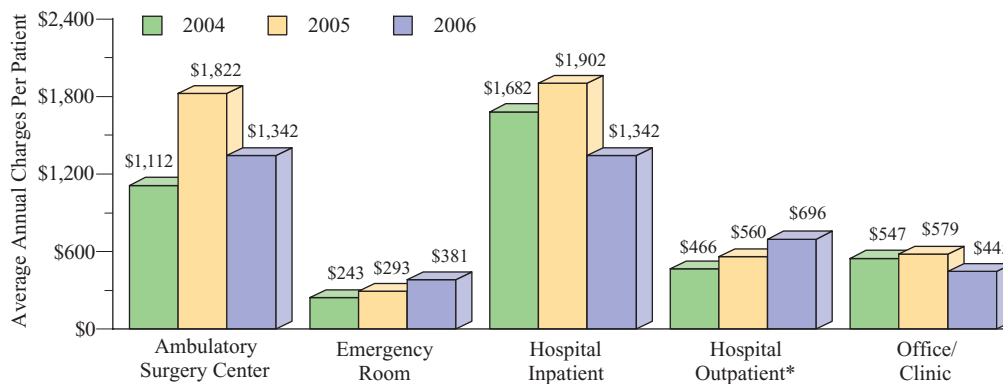
DEMOGRAPHICS: AGE AND GENDER

AGE GROUP	Percentage of Type 2 Diabetes Patients		
	2004	2005	2006
0-17	0.2%	0.3%	0.3%
18-35	6.8	6.1	6.9
36-64	62.5	66.9	57.7
64-79	24.5	20.6	26.2
80+	6.0	6.1	9.0
GENDER			
Male	27.6%	28.1%	30.6%
Female	72.4	71.9	69.4

DEMOGRAPHICS: COMORBIDITIES AND COMPLICATIONS

COMORBIDITIES	Percentage of Type 2 Diabetes Patients		
	2004	2005	2006
0	31.2%	35.9%	44.5%
1	24.7	23.0	22.0
2	31.8	28.1	24.3
>2	12.3	13.0	9.2
COMPLICATIONS			
0	54.5%	54.6%	54.4%
1	31.3	32.2	35.5
2	11.2	10.4	8.3
>2	3.0	2.9	1.8

AVERAGE ANNUAL PROFESSIONAL CHARGES FOR TYPE 2 DIABETES PATIENTS



AVERAGE ANNUAL PROFESSIONAL CHARGES FOR TYPE 2 DIABETES PATIENTS, BY PAYER*

	Commercial Insurance			Medicaid			Medicare			Government		
	2004	2005	2006	2004	2005	2006	2004	2005	2006	2004	2005	2006
Hospital Inpatient	\$2,357	\$1,618	\$1,622	\$1,531	—	\$2,433	\$1,184	\$2,244	\$1,120	—	\$694	—
Hospital Outpatient	656	546	916	509	—	436	—	599	—	—	—	\$840
Office / Clinic	485	435	453	377	\$272	400	607	853	—	—	285	277

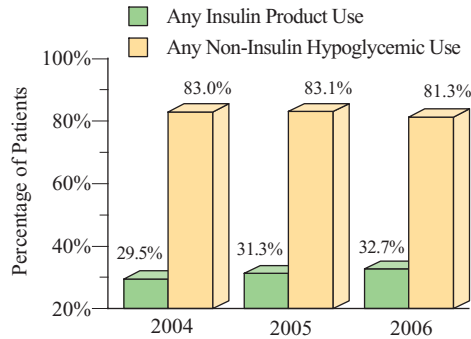
UTILIZATION: PERCENTAGE OF TYPE 2 DIABETES PATIENTS, BY SERVICE

	A1C Test	Serum Cholesterol	Urine Glucose Test	Ophthalmologic Examination
2004	79.5%	80.5%	88.8%	70.7%
2005	74.3	80.3	84.9	64.2
2006	80.1	81.6	87.5	65.8

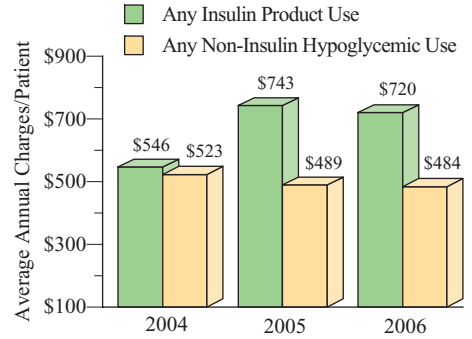
Data source: Verispan LLC © 2007

GREELEY

PHARMACOTHERAPY: PERCENTAGE OF PATIENTS, BY TYPE OF DRUG THERAPY



PHARMACOTHERAPY: AVERAGE ANNUAL CHARGES BY TYPE OF DRUG THERAPY



PUEBLO

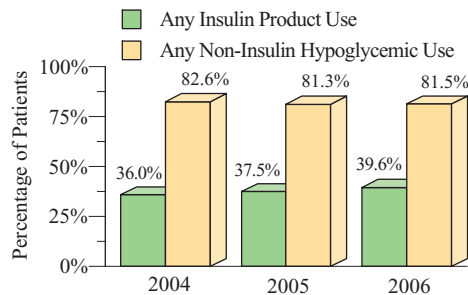
DEMOGRAPHICS: AGE AND GENDER

AGE GROUP	Percentage of Type 2 Diabetes Patients		
	2004	2005	2006
0-17	0.3%	0.5%	0.5%
18-35	3.5	3.8	4.6
36-64	54.0	53.9	52.2
64-79	32.5	32.3	32.0
80+	9.7	9.6	10.7
GENDER			
Male	38.1%	36.7%	36.5%
Female	61.9	63.3	63.5

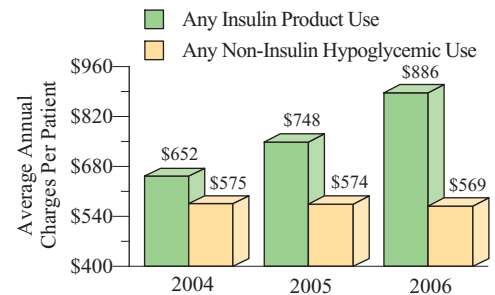
DEMOGRAPHICS: COMORBIDITIES AND COMPLICATIONS

COMORBIDITIES	Percentage of Type 2 Diabetes Patients		
	2004	2005	2006
0	37.4%	45.8%	55.6%
1	26.7	23.3	18.2
2	26.3	22.8	19.8
>2	9.5	8.1	6.5
COMPLICATIONS			
0	53.8%	55.9%	63.4%
1	31.3	31.0	26.3
2	11.3	9.9	7.9
>2	3.7	3.1	2.4

PHARMACOTHERAPY: PERCENTAGE OF PATIENTS, BY TYPE OF DRUG THERAPY



PHARMACOTHERAPY: AVERAGE ANNUAL CHARGES BY TYPE OF DRUG THERAPY

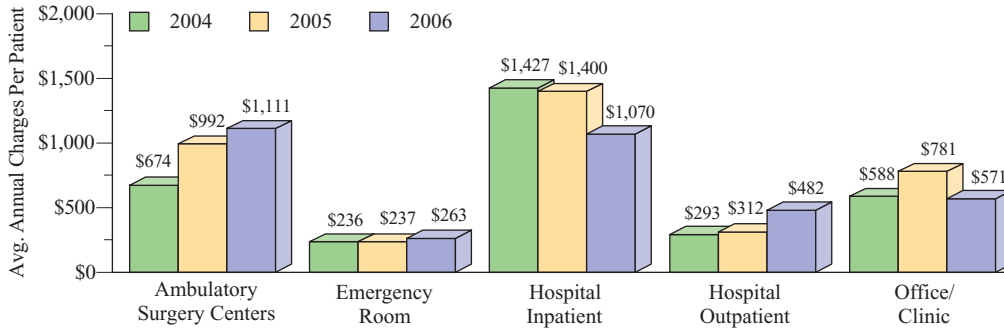


UTILIZATION: PERCENTAGE OF TYPE 2 DIABETES PATIENTS, BY SERVICE

	A1C Test	Serum Cholesterol	Urine Glucose Test	Ophthalmologic Examination
2004	75.7%	80.7%	87.3%	66.7%
2005	79.2	82.0	84.1	68.4
2006	76.6	83.1	89.7	69.9

Data source: Verispan LLC © 2007

AVERAGE ANNUAL PROFESSIONAL CHARGES FOR TYPE 2 DIABETES PATIENTS



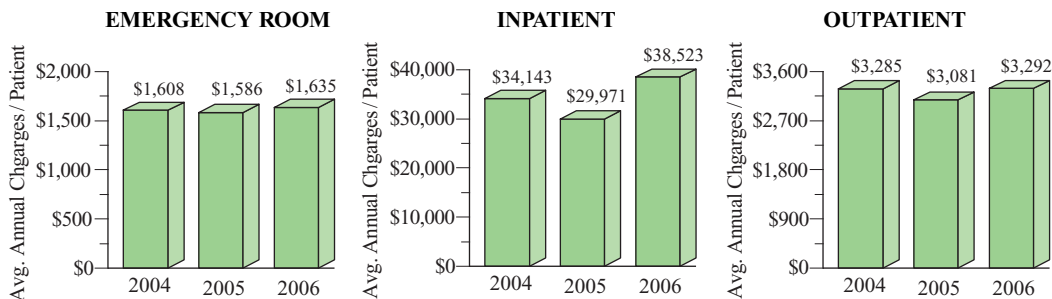
AVERAGE ANNUAL PROFESSIONAL CHARGES FOR TYPE 2 DIABETES PATIENTS, BY PAYER*

	Commercial Insurance			Medicaid			Medicare			Government		
	2004	2005	2006	2004	2005	2006	2004	2005	2006	2004	2005	2006
Hospital Inpatient	\$1,426	\$1,703	\$1,182	\$652	\$1,859	\$925	\$1,451	\$1,050	\$994	\$1,403	—	\$2,040
Hospital Outpatient	264	306	320	280	418	332	319	281	318	55	—	—
Office / Clinic	466	637	587	536	854	—	715	907	544	593	592	724

AVERAGE ANNUAL HOSPITAL CHARGES FOR TYPE 2 DIABETES PATIENTS, BY PAYER TYPE, 2006

	Managed Care/ Commercial Insurance			Medicaid			Medicare			Government		
	2004	2005	2006	2004	2005	2006	2004	2005	2006	2004	2005	2006
Emergency Room	\$1,344	\$1,402	\$1,384	\$1,883	\$2,021	\$1,968	\$1,627	\$1,584	—	\$1,448	\$1,240	\$1,158
Hospital Outpatient	2,753	2,855	2,892	3,650	4,092	3,905	3,521	1,418	—	2,702	2,679	2,550
Hospital Inpatient	32,702	38,320	34,819	41,393	45,589	48,515	33,106	8,236	—	26,006	47,226	30,991

AVERAGE ANNUAL HOSPITAL CHARGES FOR TYPE 2 DIABETES PATIENTS



Data source: Verispan LLC © 2007

Data Methodology

Through agreements with more than three dozen data providers, Verispan receives data from more than 425 million health care professional and institutional claims annually, representing over 200 million unique patients, or approximately 30% of all such claims in the U.S. Data from physicians of all specialties and from all hospital types are presented in the TTS.

Verispan also gathers data on prescription activity from the National Council for Prescription Drug Programs (NCPDP). These data represent some 5 billion prescription claims annually, or approximately 54% 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, and come from a near census of more than 59,000 pharmacies in the U.S. Cash, mail-order, Medicaid, and third-party transactions are tracked.

DATA INTEGRITY

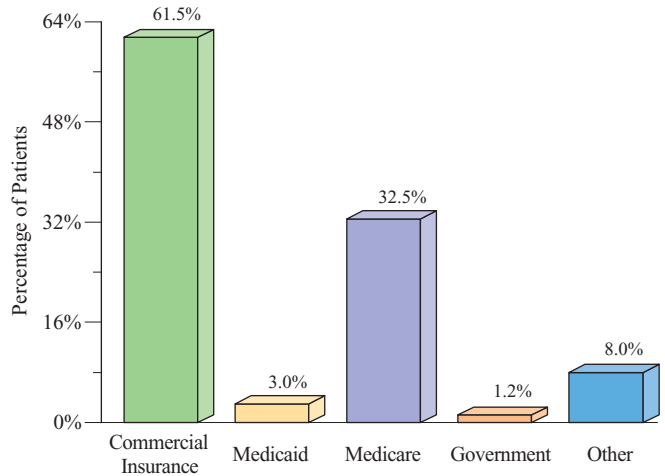
Data arriving into Verispan are put through a rigorous process to ensure that data elements match to valid references, such as product codes, ICD-9 (diagnosis) and CPT-4 (procedure) codes, and provider and facility data.

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 each patient, 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.

COLORADO TYPE 2 DIABETES PATIENT CLAIMS, BY PAYER TYPE, 2006*



* Other includes self-pay and workers' compensation.

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The role of the CBGH is to help make these data more widely available to interested parties.