

VIRGINIA

Type 2 Diabetes Report

2008



Presented by
sanofi aventis

in conjunction with the



Virginia Business Coalition on Health

Featuring Demographic,
Utilization, Charges and
Pharmacotherapy Data



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Introduction

The Virginia Business Coalition on Health (VBCH) is pleased to present the inaugural **Virginia Type 2 Diabetes Report** for 2008, an overview of demographic, utilization, financial and pharmacotherapy measures for Type 2 diabetes patients in key local markets across the Commonwealth of Virginia. The report 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 sanofi-aventis **Managed Care Digest Series®**. Sanofi-aventis, as sponsor of this report, maintains an arm's length relationship with this organization. The desire of sanofi-aventis is that the information in this report be completely independent and objective.

The **Virginia Type 2 Diabetes Report** for 2008 helps VBCH to fulfill its commitment to working with our partners in the community and to promote and maintain a health care delivery system that provides quality, accountability and affordability for our members' employees.

This first edition features a number of examples of the kinds of disease-specific data on Type 2 diabetes that can be provided by VBCH. The data in this report (covering 2006 and 2007) were gathered by SDI, Plymouth Meeting, Pa., 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 (provider) and facility (hospital) charges, service utilization and pharmacotherapy.

PATIENT DEMOGRAPHICS

SHARE OF WORKING AGE PATIENTS IN RICHMOND IS HIGH

Of patients diagnosed with Type 2 diabetes in the Richmond/Petersburg MSA, 61.7% were between the ages of 18 and 64 in 2007, down fractionally from 62.3% in 2006, but still the highest share of the seven markets profiled by a considerable margin. By comparison, 52.9% of Type 2 diabetes patients nationally fell into this age category, down from 54.2% the previous year.

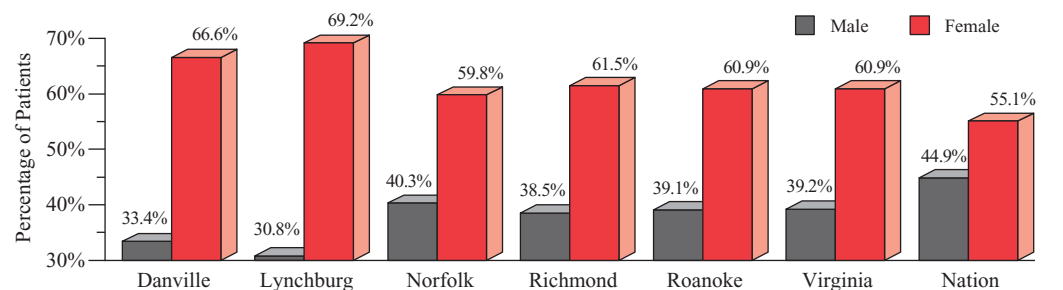
* On all pages, the percentages are representative of the universe of Type 2 diabetes patients on whom claims data have been collected in a given year.

NOTE: Throughout this document, the Norfolk MSA also includes Virginia Beach and Newport News.

PERCENTAGE OF TYPE 2 DIABETES PATIENTS, BY AGE*

MARKET	0-17		18-35		36-64		65-79		80+	
	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007
	Danville	0.5%	0.5%	3.2%	3.3%	54.8%	52.9%	31.6%	32.9%	10.0%
Lynchburg	0.3	0.3	4.1	3.8	52.7	54.2	33.4	32.3	9.4	9.4
Norfolk	0.3	0.3	3.0	2.9	52.3	52.2	33.9	34.0	10.6	10.7
Richmond/ Petersburg	0.4	0.3	3.8	3.6	58.5	58.1	28.8	29.0	8.5	9.0
Roanoke	0.3	0.3	3.1	2.8	51.0	51.4	35.4	34.9	10.2	10.7
Virginia	0.4	0.3	3.6	3.5	55.1	54.3	31.4	31.9	9.5	10.1
NATION	0.4%	0.4%	3.6%	3.4%	50.6%	49.5%	33.3%	34.1%	12.1%	12.7%

PERCENTAGE OF TYPE 2 DIABETES PATIENTS, BY GENDER, 2007*



Data source: SDI © 2008

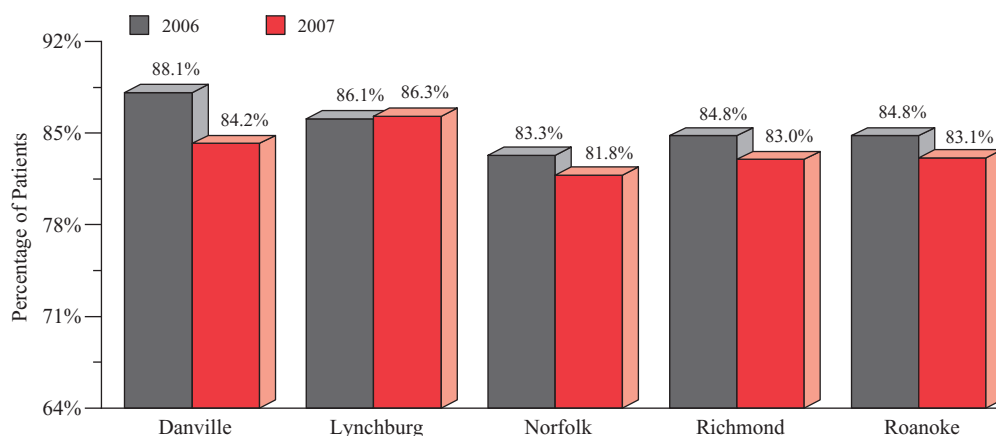
PERCENTAGE OF TYPE 2 DIABETES PATIENTS, BY NUMBER OF COMPLICATIONS*

MARKET	0		1		2		>2	
	2006	2007	2006	2007	2006	2007	2006	2007
	Danville	60.6%	54.9%	27.5%	29.3%	9.1%	12.0%	2.8%
Lynchburg	56.3	59.1	29.8	27.2	10.7	10.4	3.2	3.4
Norfolk	49.0	46.8	34.3	35.0	12.6	13.7	4.1	4.6
Richmond/ Petersburg	52.8	50.5	32.0	32.5	11.6	12.5	3.7	4.4
Roanoke	51.5	49.6	33.3	33.5	11.4	12.4	3.8	4.5
Virginia	54.3	52.2	31.6	32.1	10.8	11.8	3.4	3.9
NATION	64.2%	62.5%	27.5%	28.2%	6.7%	7.3%	1.7%	2.0%

COMPLICATION-FREE PATIENT SHARE RISES IN LYNCHBURG

The share of patients in the Lynchburg MSA who were diagnosed with Type 2 diabetes but had no complications from the disease was 59.1% in 2007, up from 56.3% in 2006, the only such increase of the six Virginia markets profiled. In spite of this annual growth, the complication-free Type 2 diabetes patient share in this market remained notably behind the national average (62.5%).

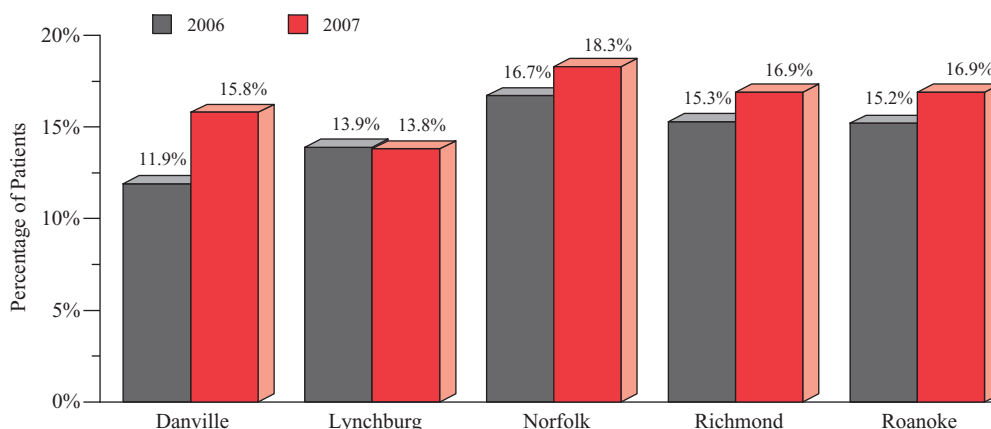
PERCENTAGE OF TYPE 2 DIABETES PATIENTS WITH ONE COMPLICATION OR FEWER*



NORFOLK PATIENT SHARE WITH MANY COMPLICATIONS RISES

Of patients in Norfolk with Type 2 diabetes, 18.3% were diagnosed with two or more complications from the disease in 2007, up from 16.7% in 2006, and the highest such mark by Virginia market. In 2007, the shares of Type 2 diabetes patients with two or more complications from the disease were notably higher than the national average (9.3%) in all six Virginia markets profiled.

PERCENTAGE OF TYPE 2 DIABETES PATIENTS WITH TWO OR MORE COMPLICATIONS*



Data source: SDI © 2008

* 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.



PATIENT DEMOGRAPHICS

VIRGINIA DIABETES PATIENTS HAVE MANY COMORBIDITIES

In 2007, the percentages of Type 2 diabetes patients who were diagnosed with more than two comorbidities were substantially higher than the national rate (5.5%) in six Virginia markets profiled. For example, 13.9% of Type 2 diabetes patients in Danville were diagnosed with more than two comorbidities, up from 12.2% the previous year, and more than eight percentage points higher than the national average.

COMORBIDITY-FREE VIRGINIA DIABETES PATIENT SHARE LAGS

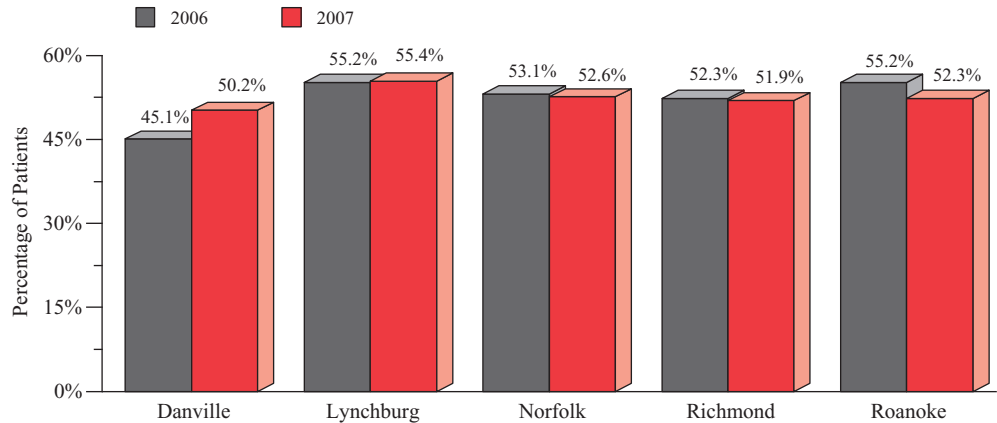
The share of Type 2 diabetes patients in the Commonwealth of Virginia who were without a diagnosed comorbidity was 32.5% in 2007, virtually unchanged from 32.4% in 2006, but considerably less than the national average (46.7%). In 2007, patients diagnosed with Type 2 diabetes in Lynchburg (34.6%) were most likely, by Virginia market, to be comorbidity-free, while such patients in Danville (29.0%) were least likely.

* 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 may include, but are not limited to, congestive heart failure, coronary artery disease, dysmetabolic syndrome, hyperlipidemia, hypertension and obesity.

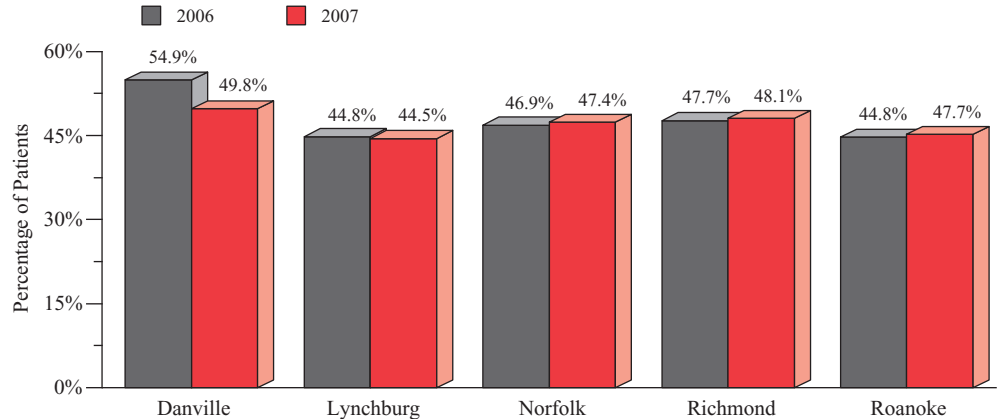
PERCENTAGE OF TYPE 2 DIABETES PATIENTS, BY NUMBER OF COMORBIDITIES*

MARKET	0		1		2		>2	
	2006	2007	2006	2007	2006	2007	2006	2007
Danville	23.8%	29.0%	21.3%	21.2%	42.7%	35.9%	12.2%	13.9%
Lynchburg	33.0	34.6	22.2	20.8	33.3	33.5	11.5	11.0
Norfolk	30.3	30.0	22.8	22.6	34.2	34.4	12.7	13.0
Richmond/ Petersburg	29.8	29.5	22.5	22.4	35.3	35.7	12.4	12.4
Roanoke	33.2	30.1	22.0	22.2	34.0	36.6	10.8	11.1
Virginia	32.4	32.5	22.6	22.4	33.9	34.0	11.1	11.2
NATION	45.4%	46.7%	24.0%	23.4%	25.0%	24.3%	5.6%	5.5%

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



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



Data source: SDI © 2008

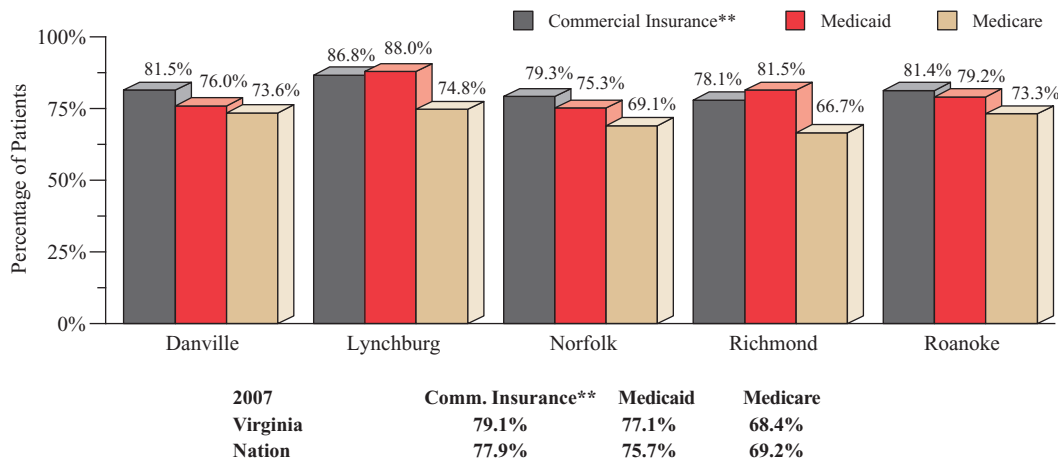
PERCENTAGE OF TYPE 2 DIABETES PATIENTS, BY SERVICE

MARKET	A1C Test*		Blood Glucose Test		Serum Cholesterol Test		Ophthalmologic Exam		Urine Glucose Test	
	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007
Danville	85.6%	76.6%	88.8%	85.0%	91.0%	86.3%	60.1%	61.7%	87.1%	86.8%
Lynchburg	78.1	79.3	91.1	91.0	88.1	86.9	59.8	60.6	86.1	86.2
Norfolk	72.6	73.4	85.8	86.1	84.0	84.3	68.8	70.1	86.2	85.5
Richmond/ Petersburg	72.1	72.2	83.8	83.9	81.7	82.1	70.7	71.0	82.7	83.6
Roanoke	76.2	76.8	87.4	88.0	85.3	85.5	68.6	63.9	84.1	84.5
Virginia	73.3	73.3	85.5	85.5	83.4	83.5	67.6	68.2	84.6	84.3
NATION	73.9%	73.8%	86.5%	86.6%	83.7%	83.8%	68.8%	69.2%	83.0%	83.3%

A1C TEST RATES TOP NATION IN THREE VIRGINIA MARKETS

The overall shares of patients diagnosed with Type 2 diabetes who received at least one A1c test in 2007 surpassed the national rate (73.8%) in three of six Virginia markets profiled. In Lynchburg, for example, the share of Type 2 diabetes patients administered at least one A1c test in 2007 was 79.3%, up from 78.1% in 2006, and 5.5 percentage points higher than the national average.

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



VIRGINIA PATIENT SHARE WITH LOW A1C LEVELS IMPROVES

Of patients diagnosed with Type 2 diabetes in the Commonwealth of Virginia in 2007, 64.1% had their most recent A1c test levels at 7.0% or lower, up from 60.5% in 2006, and moderately higher than the national average (61.1%). In 2007, the shares of Type 2 diabetes patients with their most recent A1c levels at or below 7.0% surpassed the national rate in all six Virginia markets profiled.

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

MARKET	≤7.0%		7.1–7.9%		8.0–9.0%		>9.0%	
	2006	2007	2006	2007	2006	2007	2006	2007
Danville	65.9%	67.7%	15.4%	12.3%	8.6%	8.5%	10.1%	11.5%
Lynchburg	64.8	68.0	16.1	13.5	9.4	8.3	9.7	10.2
Norfolk	60.9	65.3	17.2	15.5	10.0	9.0	11.9	10.3
Richmond/ Petersburg	59.6	64.0	18.0	16.2	10.4	9.1	12.0	10.7
Roanoke	61.9	66.0	17.5	15.3	9.6	9.1	11.0	9.6
Virginia	60.5	64.1	17.6	16.1	10.1	9.1	11.8	10.8
NATION	58.3%	61.1%	18.6%	17.4%	10.9%	9.8%	12.2%	11.7%

* The A1C test measures 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.

Data source: SDI © 2008



HOSPITAL CHARGES

TYPE 2 DIABETES INPATIENT CHARGES GROW IN VIRGINIA

Although average annual hospital inpatient charges for care delivered to Type 2 diabetes patients in the Commonwealth of Virginia increased substantially between 2006 (\$22,872) and 2007 (\$29,687), the charges remained notably below the national average (\$49,870). Such charges likewise rose considerably (to \$27,485 from \$21,150 the year before) for Type 2 diabetes patients in Norfolk.

NORFOLK OP FACILITY CHARGES RISE FOR DIABETES PATIENTS

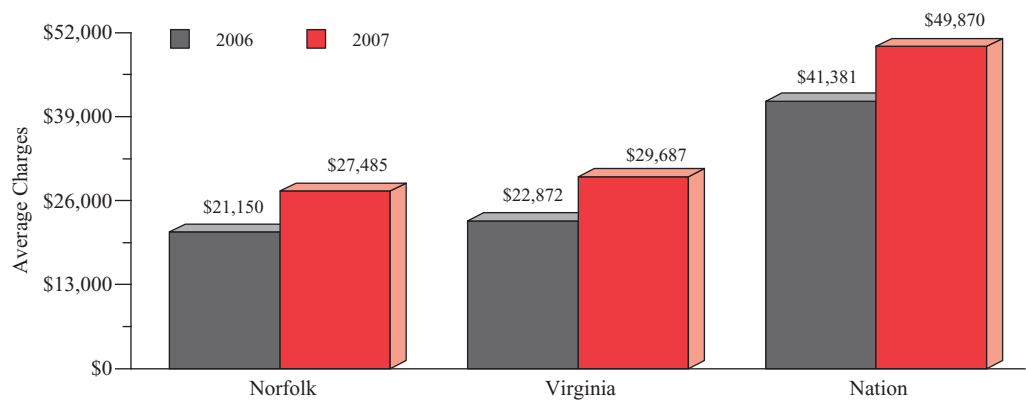
Average hospital outpatient charges for Type 2 diabetes patients receiving care in Norfolk were \$3,211 in 2007, up notably from \$2,766 in 2006. Such charges rose even more considerably for Type 2 diabetes patients across the Commonwealth of Virginia, to \$3,245 from \$2,626 the year before. In spite of these sizable annual increases, hospital outpatient charges per Type 2 diabetes patient per year were significantly higher nationally (\$4,673).

* 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.

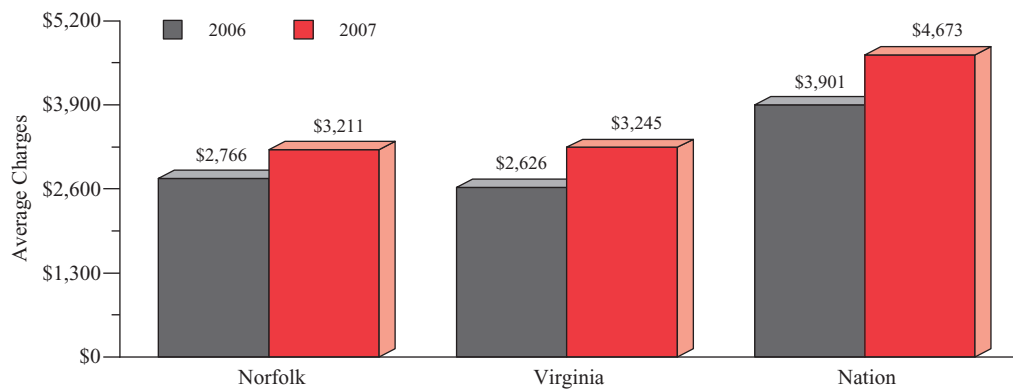
HOSPITAL CHARGES PER YEAR FOR TYPE 2 DIABETES PATIENTS*

MARKET	Hospital Inpatient		Hospital Outpatient		Emergency Room	
	2006	2007	2006	2007	2006	2007
Norfolk	\$21,150	\$27,485	\$2,766	\$3,211	\$963	\$1,152
Virginia	22,872	29,687	2,626	3,245	787	1,146
NATION	\$41,381	\$49,870	\$3,901	\$4,673	\$1,299	\$1,651

HOSPITAL INPATIENT CHARGES PER YEAR FOR TYPE 2 DIABETES PATIENTS*



HOSPITAL OUTPATIENT CHARGES PER YEAR FOR TYPE 2 DIABETES PATIENTS*



NOTE: Hospital charge data for the Danville, Lynchburg, Richmond/Petersburg and Roanoke MSAs were unavailable.

Data source: SDI © 2008

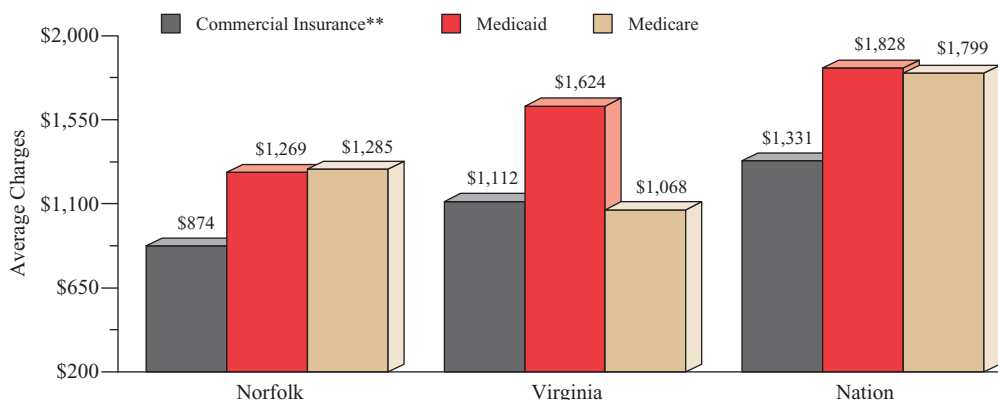
HOSPITAL INPATIENT CHARGES PER YEAR FOR TYPE 2 DIABETES PATIENTS, BY PAYER TYPE*

MARKET	Commercial Insurance**		Medicaid		Medicare	
	2006	2007	2006	2007	2006	2007
	Norfolk	\$17,241	\$24,874	\$28,221	\$34,645	\$22,244
Virginia	20,563	31,274	—	40,872	22,495	25,832
NATION	\$36,468	\$43,606	\$37,917	\$47,039	\$41,689	\$48,839

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

MARKET	Commercial Insurance**		Medicaid		Medicare	
	2006	2007	2006	2007	2006	2007
	Norfolk	\$2,393	\$2,924	\$3,314	\$4,263	\$2,945
Virginia	2,273	3,230	2,549	3,384	2,784	3,062
NATION	\$3,277	\$4,030	\$3,735	\$4,317	\$4,347	\$5,103

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



Data source: SDI © 2008

NOTE: Hospital charge data for the Danville, Lynchburg, Richmond/Petersburg and Roanoke MSAs were unavailable.

VIRGINIA MANAGES MEDICARE HOSPITAL INPATIENT CHARGES

Inpatient hospital charges for Virginia patients with Type 2 diabetes and Medicare coverage rose in 2007, to \$25,832 from \$22,495 in 2006. Yet this mark was relatively modest when compared with the national average for this payer (to \$48,839 from \$41,689 the year before). Between 2006 and 2007, annual inpatient charges per Type 2 diabetes patient increased notably in all three markets profiled, regardless of payer type.

OUTPATIENT CHARGES IN VIRGINIA LAG THE NATIONAL AVERAGES

In 2007, annual charges for hospital outpatient care delivered to Type 2 diabetes patients in the Commonwealth of Virginia were lower than their corresponding national averages, regardless of payer type. For example, average hospital outpatient charges for Type 2 diabetes patients with commercial insurance coverage were substantially less in Virginia (\$3,230) than nationally (\$4,030).

* Figures reflect the charges generated per year for Type 2 diabetes patients by the facilities that delivered care.

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



PROFESSIONAL CHARGES

INPATIENT DIABETES PROVIDER CHARGES RISE IN VIRGINIA

Average professional inpatient charges per year for care delivered to Type 2 diabetes patients rose in the Commonwealth of Virginia in 2007, to \$4,503 from \$4,271 in 2006. Still, these charges trailed the national average for inpatient care (\$6,070) by a considerable margin. In 2007, annual inpatient provider charges for Type 2 diabetes patients fell in four of five Virginia local markets profiled.

VIRGINIA LOCAL MARKET OP PROVIDER CHARGES DECLINE

Between 2006 and 2007, average annual professional outpatient charges for care administered to Type 2 diabetes patients fell in Virginia, and in three of four local Commonwealth markets for which data were available. In Richmond, for example, such charges per Type 2 diabetes patient per year dropped, to \$1,259 from \$1,545 the year before. Conversely, such charges rose nationally, to \$1,919 in 2007 from \$1,814 in 2006.

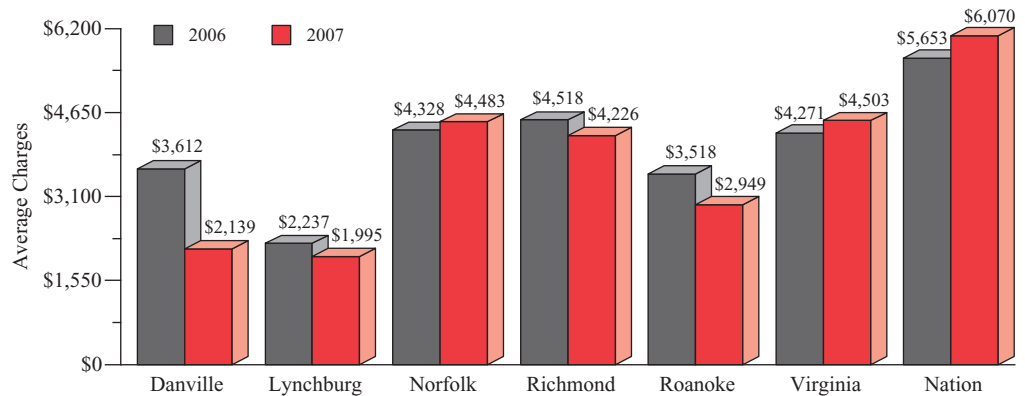
* Professional charges are those generated by the providers delivering care to Type 2 diabetes patients in various settings.

** Ambulatory surgery center.

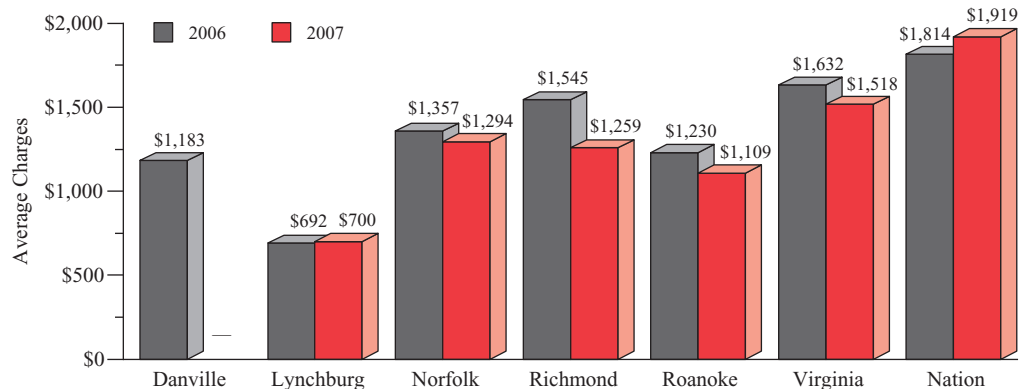
PROFESSIONAL CHARGES PER YEAR FOR TYPE 2 DIABETES PATIENTS*

MARKET	ASC**		Emergency Room		Hospital Inpatient		Hospital Outpatient		Office	
	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007
	Danville	—	—	\$398	\$512	\$3,612	\$2,139	\$1,183	—	\$795
Lynchburg	—	—	192	196	2,237	1,995	692	\$700	1,227	1,258
Norfolk	\$5,505	\$5,176	222	186	4,328	4,483	1,357	1,294	1,396	1,487
Richmond/ Petersburg	3,912	3,402	234	203	4,518	4,226	1,545	1,259	912	849
Roanoke	2,695	3,713	302	348	3,518	2,949	1,230	1,109	983	1,054
Virginia	3,930	3,793	337	354	4,271	4,503	1,632	1,518	1,095	1,147
NATION	\$2,791	\$3,055	\$575	\$647	\$5,653	\$6,070	\$1,814	\$1,919	\$2,630	\$2,818

PROFESSIONAL INPATIENT CHARGES PER YEAR FOR TYPE 2 DIABETES PATIENTS*



PROFESSIONAL OUTPATIENT CHARGES PER YEAR FOR TYPE 2 DIABETES PATIENTS*



Data source: SDI © 2008

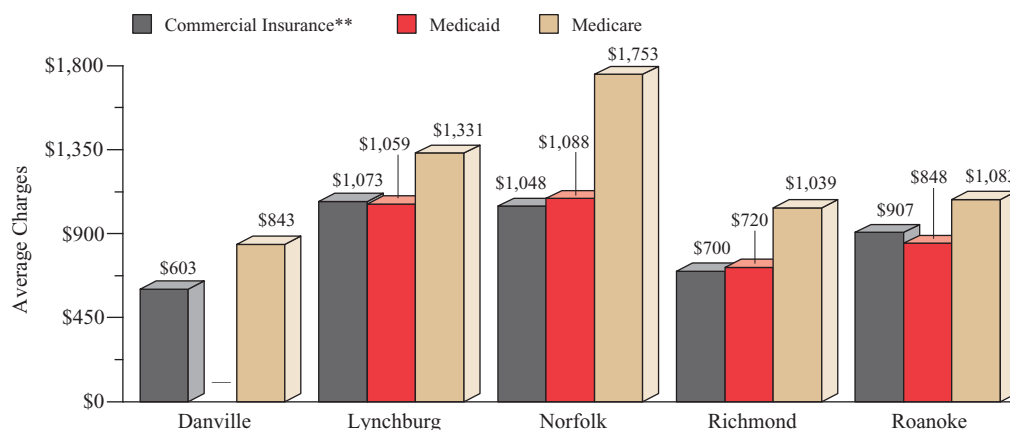
PROFESSIONAL INPATIENT CHARGES PER YEAR FOR TYPE 2 DIABETES PATIENTS, BY PAYER TYPE*

MARKET	Commercial Insurance**		Medicaid		Medicare	
	2006	2007	2006	2007	2006	2007
Danville	\$2,506	\$2,003	\$1,895	\$1,179	\$3,980	\$2,074
Lynchburg	2,251	3,061	1,922	2,328	2,092	1,667
Norfolk	3,622	3,596	3,782	3,516	4,180	4,394
Richmond/ Petersburg	3,646	3,243	3,161	3,079	4,697	4,437
Roanoke	3,227	3,151	2,923	3,468	3,462	2,567
Virginia	3,633	3,504	3,419	4,533	4,204	4,468
NATION	\$4,767	\$4,916	\$4,553	\$4,963	\$5,380	\$5,823

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

MARKET	Commercial Insurance**		Medicaid		Medicare	
	2006	2007	2006	2007	2006	2007
Danville	\$1,298	\$872	—	—	\$956	—
Lynchburg	1,193	1,362	—	\$1,005	541	\$615
Norfolk	1,234	1,124	\$1,002	1,281	1,375	1,358
Richmond/ Petersburg	1,523	1,083	1,439	1,391	1,415	1,361
Roanoke	1,284	1,354	1,309	—	1,093	713
Virginia	1,584	1,415	1,154	1,004	1,564	1,487
NATION	\$1,769	\$1,797	\$1,297	\$1,388	\$1,541	\$1,676

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



Data source: SDI © 2008

COMMERCIAL INPATIENT PROVIDER CHARGES DROP

Professional charges for care delivered to Type 2 diabetes inpatients in the Commonwealth of Virginia with commercial insurance coverage declined slightly in 2007, to \$3,504 per year from \$3,633 in 2006. By comparison, average provider charges increased for Type 2 diabetes inpatients nationally, to a notably higher \$4,916 from \$4,767 the previous year.

DIABETES OUTPATIENT PROVIDER CHARGES DECLINE IN VIRGINIA

Between 2006 and 2007, outpatient provider charges for care delivered to Type 2 diabetes patients in the Commonwealth of Virginia dropped, regardless of payer category. For example, such charges for Virginia Type 2 diabetes patients with Medicaid coverage fell, to \$1,004 from \$1,154 the year before. Conversely, outpatient provider charges per Type 2 diabetes patient increased nationally, between 2006 and 2007, regardless of payer type.

* 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.

VIRGINIA TYPE 2 DIABETES PATIENT INSULIN USE EDGES UP

The overall share of patients diagnosed with Type 2 diabetes in the Commonwealth of Virginia who used any insulin product edged up in 2007, to 32.6% from 31.8% in 2006. Still, this patient share remained notably less than the national average (35.6%). Of the Virginia local markets profiled, the shares of Type 2 diabetes patients using insulin were highest in Roanoke (43.1%) and lowest in Danville (30.1%)

VIRGINIA PER-PATIENT NON-INSULIN USE TRAILS THE NATION

In 2007, the shares of Virginia Type 2 diabetes patients who used a non-insulin therapy were less than the corresponding national rate in every category listed. For example, 48.2% of these patients used biguanides in 2007, compared with 52.5% of patients nationally. Meanwhile, the share of Virginia Type 2 diabetes patients who used any non-insulin antidiabetic product was 83.6%, slightly less than the national average (84.8%).

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

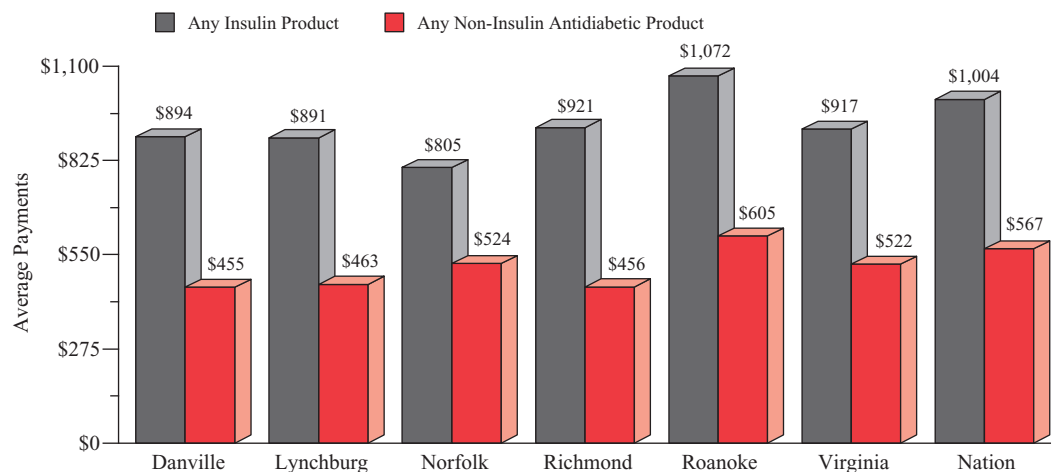
PERCENTAGE OF TYPE 2 DIABETES PATIENTS USING INSULIN THERAPIES

MARKET	Any Insulin Product		Intermediate-Acting Insulin		Long-Acting Insulin		Short-Acting Insulin		Mixed Insulin	
	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007
Danville	32.4%	30.1%	6.8%	5.0%	14.5%	15.2%	9.5%	9.6%	10.5%	10.3%
Lynchburg	32.6	33.0	6.3	4.1	14.6	16.6	11.7	12.2	9.1	7.9
Norfolk	31.4	31.5	4.0	3.2	15.5	16.9	9.5	9.8	11.1	10.0
Richmond	31.4	31.8	7.7	6.3	12.1	14.4	11.5	12.0	9.5	8.7
Roanoke	38.6	43.1	5.6	5.0	16.5	19.9	14.8	17.2	11.6	12.9
Virginia	31.8	32.6	5.2	4.3	15.0	17.0	11.3	11.9	9.2	8.6
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 USING NON-INSULIN ANTIDIABETIC THERAPIES

MARKET	Any Non-Insulin Antidiabetic Product		Biguanides		Sulfonylureas		Insulin Sensitizing Agents	
	2006	2007	2006	2007	2006	2007	2006	2007
Danville	83.3%	86.3%	45.4%	49.9%	42.8%	45.2%	27.2%	21.9%
Lynchburg	81.8	81.4	43.7	47.3	43.0	43.1	28.6	22.4
Norfolk	84.6	84.9	44.0	44.9	42.2	40.2	30.3	26.0
Richmond	82.2	82.6	50.5	52.1	39.2	38.1	25.3	20.9
Roanoke	77.3	74.6	44.8	42.3	36.9	35.1	27.2	22.2
Virginia	83.4	83.6	47.1	48.2	40.5	39.0	28.4	23.8
NATION	84.7%	84.8%	51.7%	52.5%	40.8%	39.5%	31.1%	26.0%

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



Data source: SDI © 2008

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.

Data Methodology

SDI generated data for this **Managed Care Digest Series®** 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.

SDI 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, mail-order, Medicaid, and third-party transactions are tracked.

DATA INTEGRITY

Patient-level, disease-specific data arriving into SDI 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, SDI 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 SDI 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.

WHAT IS A MSA?

According to the U.S. Census Bureau, a MSA, or metropolitan statistical area, is defined as containing a core urban area of 50,000 people or more, and consisting of one or more counties including the county containing the core urban area as well as any adjacent counties that have a high degree of social and economic integration (as measured by commuting to work) with the urban core.

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CIGNA HealthCare of Virginia	Novo Nordisk	Zel Technologies, LLC
City of Norfolk	Old Dominion University, College of Health Sciences	
	Patient First	
	Pfizer	



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The **Virginia Business Coalition on Health (VBCH)** is a non-profit, 501(c)(3), founded in 1983 under the name of the Hampton Roads Health Coalition, and since, has expanded Virginia-wide. VBCH is a mixed-model member coalition of roughly 60 stakeholders made up of purchasers (employers) and providers, representing 300,000 employees and their dependents. VBCH is a member of the National Business Coalition on Health, and together represents some 40 million covered lives. VBCH envisions a unified, knowledgeable, stakeholder voice to promote best practices for high-quality, cost-effective health care and a healthy productive workforce. It is VBCH's mission to advance value-based purchasing to improve productivity, wellness, patient safety and quality. The following are some of the value-based purchasing programs of VBCH that benefit employers and their employees:



www.healthmaprx.com

In 2008, VBCH launched **HealthMapRx™** ...Coaching Employees to Effectively Manage Diabetes. The launch begins in Chesapeake, Virginia with two large employer members, and engages the employer, the employee, the pharmacist as coach, the diabetes educator, and the physician. VBCH was awarded a 2008 Diabetes Seed Grant by the National Business Coalition on Health and the Community Coalitions Health Institute. Contact VBCH for more information and to see how you, too, can launch **HealthMapRx™** at your worksite. **HealthMapRx™** is a program of the American Pharmacists Association (APhA) Foundation.



www.evalue8.org

VBCH reports data on nine health plans Virginia-wide through the eValue8 RFI Tool, a product of the National Business Coalition on Health. VBCH's eValue8 User's Group has focused health plan improvement around the identification and treatment of diabetes, as well as improving the plans' HEDIS scores, hospitals reporting to The Leapfrog Group's Hospital Survey, immunization rates, and long-term improvement for health information technology interoperability. To request a published report of the data, contact the VBCH.



www.leapfroggroup.org

The Leapfrog Hospital Survey
Since 2003, VBCH is the Virginia Regional Roll-out Leader for The Leapfrog Group, which publicly reports hospital quality and patient safety data. In the **Leapfrog Hospital Survey**, Leapfrog asks hospitals if they adhere to four quality and safety practices, and "Never Events." To see the free report on hospital quality, visit www.leapfroggroup.org. Significant scientific evidence shows that these practices reduce unnecessary deaths and injuries.

The Diabetes Resources Directory for Hampton Roads

VBCH is in its fourth printing of the **Diabetes Resources Directory** and distributes 35,000 copies for each printing. The directory lists 44 facilities which offer adult and gestational education, support groups, camps for children and families, foot care screening, weight management, nutrition, and other programs and services.

VIRGINIA TYPE 2 DIABETES REPORT 2008

The Virginia Business Coalition on Health is pleased to bring you this first edition of the **Virginia Type 2 Diabetes Report 2008**.

The report features key national, Commonwealth of Virginia and local Type 2 diabetes data from the sanofi-aventis **Managed Care Digest Series®**.

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

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



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