

MANAGED CARE DIGEST SERIES[®]

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PUBLIC PAYER DIGEST

HMO-PPO DIGEST

VIRGINIA Type 2 Diabetes Report 2009

Featuring Demographic, Utilization, Charges and Pharmacotherapy Data

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Introduction

The Virginia Business Coalition on Health (VBCH) is pleased to present the second edition of the **Virginia Type 2 Diabetes Report** for 2009, an overview of demographic, utilization, financial and pharmacotherapy measures for Type 2 diabetes patients in key local markets across the Commonwealth of Virginia. This 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 2009 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 report 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 2007 and 2008) 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 TYPE 2 DIABETES PATIENTS SHRINKS

Between 2007 and 2008, the share of patients diagnosed with Type 2 diabetes in the state of Virginia who were between the ages of 18 and 64 declined, to 55.4% from 57.8%. In spite of this drop, Type 2 diabetes patients in Virginia were more far more likely than Type 2 diabetes patients nationally (51.6%) to be of working age in 2008.

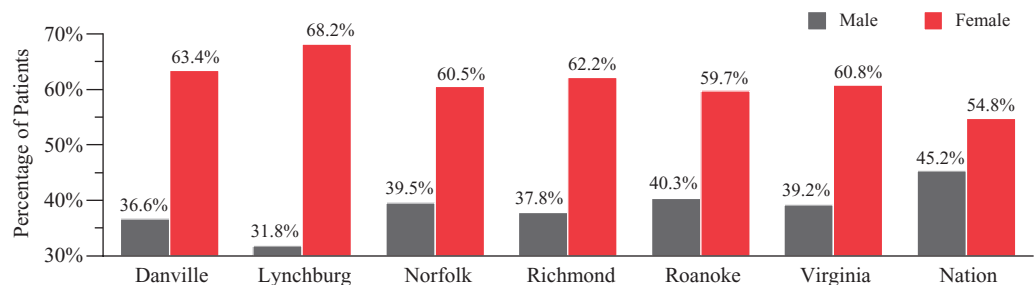
* On all pages, the percentages are representative of the universe of Type 2 diabetes patients on whom claims data have been collected in a given year.

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

PERCENTAGE OF TYPE 2 DIABETES PATIENTS, BY AGE*

MARKET	0-17		18-35		36-64		65-79		80+	
	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008
Danville	0.5%	0.3%	3.3%	2.9%	52.9%	51.8%	32.9%	33.3%	10.5%	11.6%
Lynchburg	0.3	0.3	3.8	4.0	54.2	52.1	32.3	33.4	9.4	10.2
Norfolk	0.3	0.2	2.9	2.5	52.2	51.1	34.0	34.9	10.7	11.4
Richmond	0.3	0.3	3.6	3.2	58.1	54.1	29.0	31.9	9.0	10.5
Roanoke	0.3	0.3	2.8	2.7	51.4	49.7	34.9	35.8	10.7	11.5
Virginia	0.3	0.3	3.5	3.3	54.3	52.1	31.9	33.4	10.1	11.0
NATION	0.4%	0.4%	3.4%	3.2%	49.5%	48.4%	34.1%	34.7%	12.7%	13.4%

PERCENTAGE OF TYPE 2 DIABETES PATIENTS, BY GENDER, 2008*



Data source: SDI © 2009

PATIENT DEMOGRAPHICS



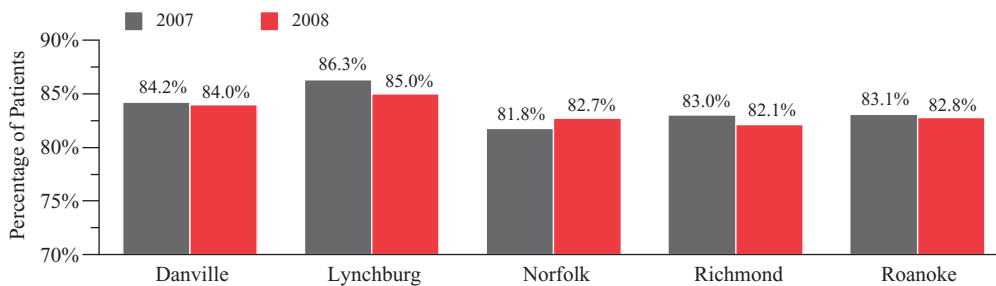
PERCENTAGE OF TYPE 2 DIABETES PATIENTS, BY NUMBER OF COMPLICATIONS*

MARKET	0		1		2		>2	
	2007	2008	2007	2008	2007	2008	2007	2008
Danville	54.9%	54.2%	29.3%	29.8%	12.0%	11.4%	3.8%	4.6%
Lynchburg	59.1	57.3	27.2	27.7	10.4	11.1	3.4	3.9
Norfolk	46.8	47.0	35.0	35.7	13.7	13.1	4.6	4.2
Richmond	50.5	49.9	32.5	32.2	12.5	13.3	4.4	4.7
Roanoke	49.6	48.8	33.5	34.0	12.4	12.8	4.5	4.5
Virginia	52.2	51.9	32.1	32.2	11.8	12.0	3.9	3.9
NATION	62.5%	61.6%	28.2%	28.6%	7.3%	7.8%	2.0%	2.1%

RICHMOND TYPE 2 PATIENTS HAVE MANY COMPLICATIONS

In 2008, a notable 18.0% of Type 2 diabetes patients in the Richmond metropolitan statistical area (MSA) were diagnosed with two or more complications from the disease, by far the highest share among the seven markets listed. In fact, the shares of Type 2 diabetes patients with two or more diagnosed complications surpassed the national average (9.9%) in all six Virginia markets profiled.

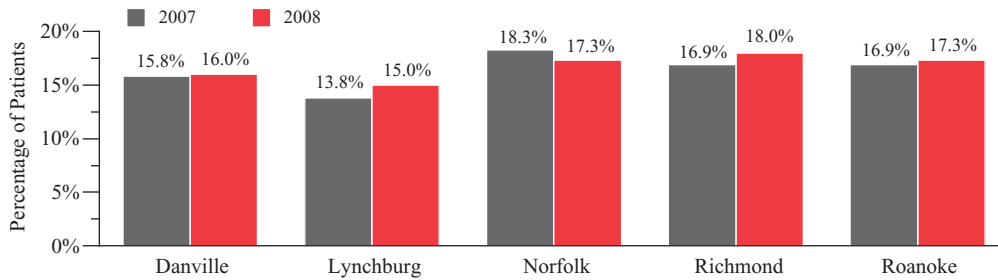
PERCENTAGE OF TYPE 2 DIABETES PATIENTS WITH ONE COMPLICATION OR FEWER*



TYPE 2 PATIENTS IN NORFOLK OFTEN HAVE HEART DISEASE

More than half (51.1%) of Type 2 diabetes patients in the Norfolk MSA also had a diagnosed complication of cardiovascular disease in 2008, the largest share of the seven markets profiled. Meanwhile, moderately lower percentages of Type 2 diabetes patients Commonwealth- (47.1%) and nationwide (46.2%) were likewise diagnosed with cardiovascular disease.

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



PERCENTAGE OF TYPE 2 DIABETES PATIENTS, BY TYPE OF COMPLICATION, 2008*

MARKET	Cardiovascular Disease	Neuropathy	Nephropathy	Retinopathy	Hypoglycemia
Danville	47.5%	21.3%	19.0%	7.6%	4.7%
Lynchburg	46.3	22.8	18.4	8.8	3.7
Norfolk	51.1	17.8	18.1	10.2	2.8
Richmond	45.3	20.4	16.0	14.5	3.8
Roanoke	49.1	22.3	17.4	7.9	3.3
Virginia	47.1	20.0	17.7	11.7	3.5
NATION	46.2%	20.1%	18.2%	11.5%	4.0%

* 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.

Data source: SDI © 2009



PATIENT DEMOGRAPHICS

SHARE OF VIRGINIA PATIENTS WITH MANY COMORBIDITIES FALLS

Although the percentage of Type 2 diabetes in the Commonwealth of Virginia with more than two diagnosed comorbidities fell moderately in 2008, to 9.7% from 11.2% in 2007, it remained well above the national average of 4.7%. Of the five local Virginia markets profiled, Type 2 diabetes patients in Norfolk (11.1%) were most likely to have more than two diagnosed comorbidities.

VIRGINIA PATIENT HYPERTENSION RATES TRAIL THE NATION

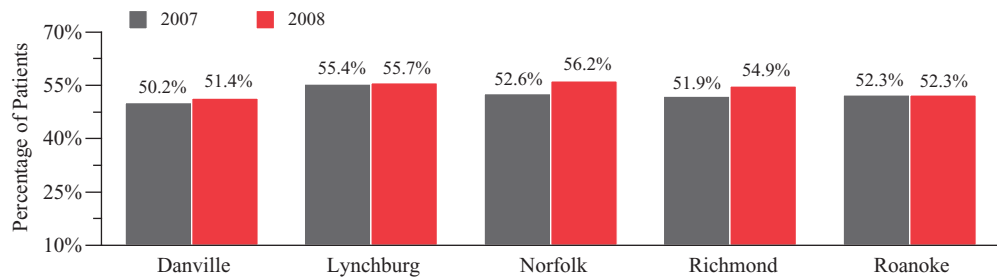
In each of the six Virginia markets profiled, the shares of Type 2 diabetes patients with a diagnosed comorbidity of hypertension trailed the national average of 48.0%. For example, just 45.1% of Type 2 diabetes patients in the Lynchburg MSA were also diagnosed with hypertension in 2008, the smallest share of the six Virginia markets listed.

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

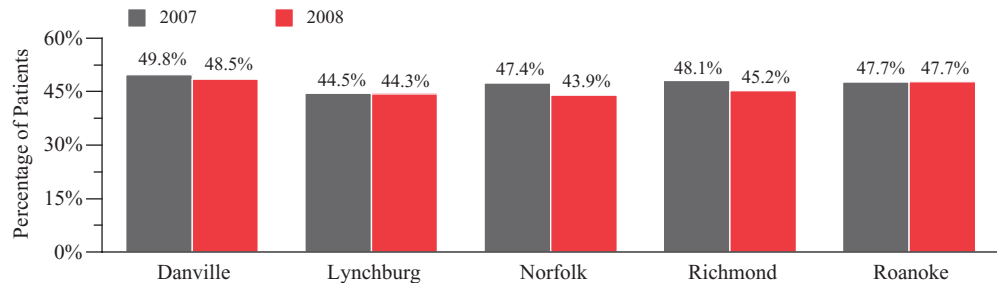
PERCENTAGE OF TYPE 2 DIABETES PATIENTS, BY NUMBER OF COMORBIDITIES*

MARKET	0		1		2		>2	
	2007	2008	2007	2008	2007	2008	2007	2008
Danville	29.0%	29.4%	21.2%	22.0%	35.9%	37.8%	13.9%	10.7%
Lynchburg	34.6	35.6	20.8	20.1	33.5	34.5	11.0	9.8
Norfolk	30.0	33.7	22.6	22.5	34.4	32.8	13.0	11.1
Richmond	29.5	33.3	22.4	21.6	35.7	34.6	12.4	10.6
Roanoke	30.1	30.9	22.2	21.4	36.6	37.5	11.1	10.2
Virginia	32.5	34.5	22.4	22.0	34.0	33.8	11.2	9.7
NATION	46.7%	47.6%	23.4%	22.9%	24.3%	24.8%	5.5%	4.7%

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



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



PERCENTAGE OF TYPE 2 DIABETES PATIENTS, BY TYPE OF COMORBIDITY, 2008*

MARKET	Hypertension	Hyperlipidemia	Congestive Heart Failure	Obesity	Dysmetabolic Syndrome
Danville	47.6%	38.4%	7.2%	6.2%	0.5%
Lynchburg	45.1	40.6	7.6	6.0	0.7
Norfolk	46.2	37.0	10.8	5.4	0.6
Richmond	46.4	38.8	7.8	5.9	1.0
Roanoke	46.1	40.7	7.1	5.4	0.6
Virginia	46.6	38.9	8.3	5.4	0.8
NATION	48.0%	38.9%	7.7%	4.8%	0.6%

Data source: SDI © 2009

USE OF SERVICES



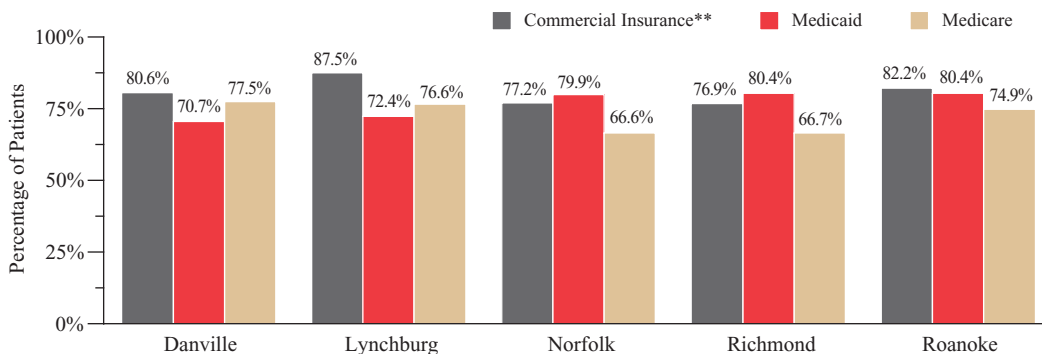
PERCENTAGE OF TYPE 2 DIABETES PATIENTS, BY SERVICE

MARKET	A1c Test*		Blood Glucose Test		Serum Cholesterol Test		Ophthalmologic Exam		Urine Glucose Test	
	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008
Danville	76.6%	78.7%	85.0%	86.8%	86.3%	85.5%	61.7%	62.6%	86.8%	86.6%
Lynchburg	79.3	80.5	91.0	91.3	86.9	89.6	60.6	63.3	86.2	86.4
Norfolk	73.4	71.1	86.1	84.7	84.3	83.4	70.1	68.6	85.5	84.0
Richmond	72.2	71.6	83.9	83.6	82.1	82.7	71.0	72.5	83.6	84.2
Roanoke	76.8	78.1	88.0	88.3	85.5	87.1	63.9	62.9	84.5	84.2
Virginia	73.3	73.2	85.5	85.3	83.5	83.7	68.2	67.9	84.3	84.3
NATION	73.8%	73.8%	86.6%	86.7%	83.8%	83.9%	69.2%	69.4%	83.3%	83.8%

MORE THAN 80% OF LYNCHBURG PATIENTS RECEIVE A1c TESTS

The share of Type 2 diabetes patients in the Lynchburg MSA who received at least one A1c test increased slightly in 2008, to 80.5% from 79.3% in 2007, nearly seven percentage points greater than the national average (73.8%). By comparison, Type 2 diabetes patients in the Richmond (71.6%) and Norfolk (71.1%) MSAs were less likely than such patients nationally to receive an A1c test in 2008.

PERCENTAGE OF TYPE 2 DIABETES PATIENTS RECEIVING A1c TESTS, BY PAYER TYPE, 2008*



LARGER SHARE OF VIRGINIA PATIENTS HAS LOW A1c LEVELS

In 2008, 64.4% of patients diagnosed with Type 2 diabetes in the Commonwealth of Virginia reported A1c test levels at or below 7.0% in their most recent test, up fractionally from 64.1% in 2007. By comparison, 61.4% of Type 2 diabetes patients nationwide had A1c test levels in this lowest range in 2008.

PERCENTAGE OF TYPE 2 DIABETES PATIENTS, BY A1c LEVEL RANGE

MARKET	≤7.0%		7.1–7.9%		8.0–9.0%		>9.0%	
	2007	2008	2007	2008	2007	2008	2007	2008
Danville	67.7%	65.5%	12.3%	13.9%	8.5%	9.1%	11.5%	11.5%
Lynchburg	68.0	67.4	13.5	14.1	8.3	8.6	10.2	10.0
Norfolk	65.3	65.9	15.5	15.2	9.0	8.4	10.3	10.6
Richmond	64.0	62.5	16.2	16.9	9.1	9.6	10.7	11.0
Roanoke	66.0	66.2	15.3	15.4	9.1	9.2	9.6	9.2
Virginia	64.1	64.4	16.1	15.8	9.1	9.0	10.8	10.7
NATION	61.1%	61.4%	17.4%	17.2%	9.8%	9.9%	11.7%	11.5%

* 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.

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

Data source: SDI © 2009



HOSPITAL CHARGES

VIRGINIA TYPE 2 PATIENTS HAVE LOW INPATIENT CHARGES

Between 2007 (\$29,687) and 2008 (\$29,622), average hospital inpatient charges for Type 2 diabetes patients in Virginia decreased fractionally. Such charges were substantially lower than the national average of \$52,730. Over the same period, Type 2 diabetes patients in Norfolk saw hospital inpatient charges increase sharply, to \$32,071 from \$27,485 the prior year.

ER CHARGES JUMP FOR NORFOLK TYPE 2 DIABETES PATIENTS

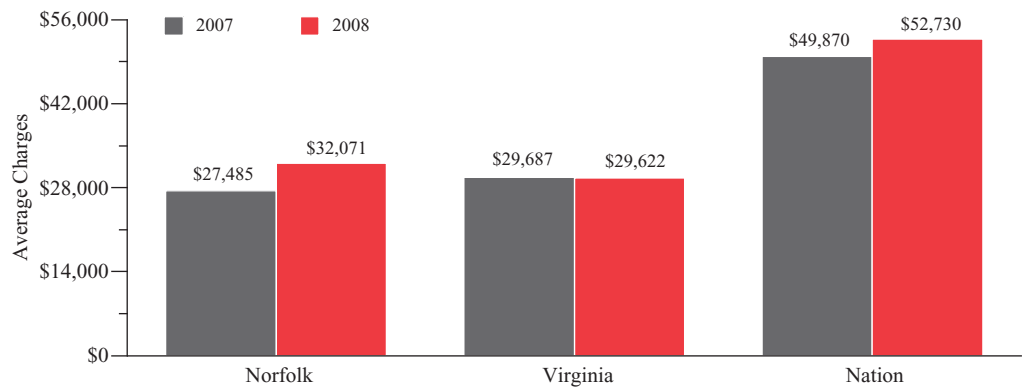
Average emergency room (ER) charges per year for Type 2 diabetes patients in the Norfolk MSA rose notably in 2008, to \$1,545 from \$1,152 in 2007. Such charges rose only slightly, by comparison, for Type 2 diabetes patients across the Commonwealth of Virginia (to \$1,225 from \$1,146 the prior year). Meanwhile, average hospital ER charges grew noticeably over the same period, to \$1,854 from \$1,651 the previous year.

* 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.

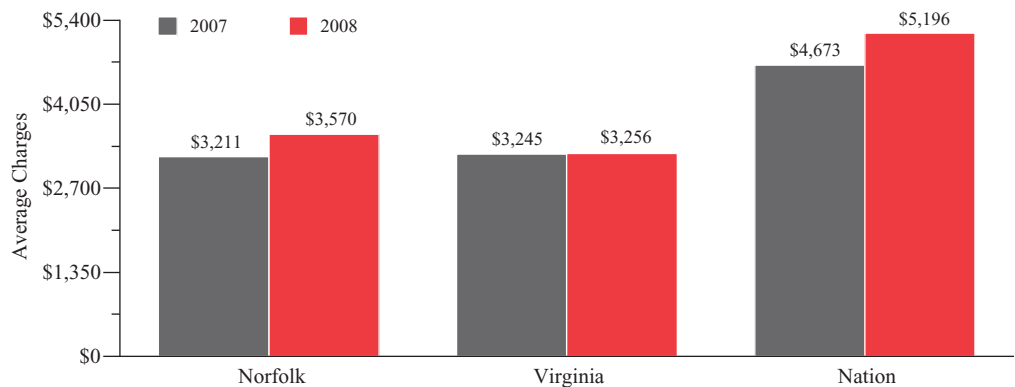
HOSPITAL CHARGES PER YEAR FOR TYPE 2 DIABETES PATIENTS*

MARKET	Hospital Inpatient		Hospital Outpatient		Emergency Room	
	2007	2008	2007	2008	2007	2008
Norfolk	\$27,485	\$32,071	\$3,211	\$3,570	\$1,152	\$1,545
Virginia	29,687	29,622	3,245	3,256	1,146	1,225
NATION	\$49,870	\$52,730	\$4,673	\$5,196	\$1,651	\$1,854

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 © 2009

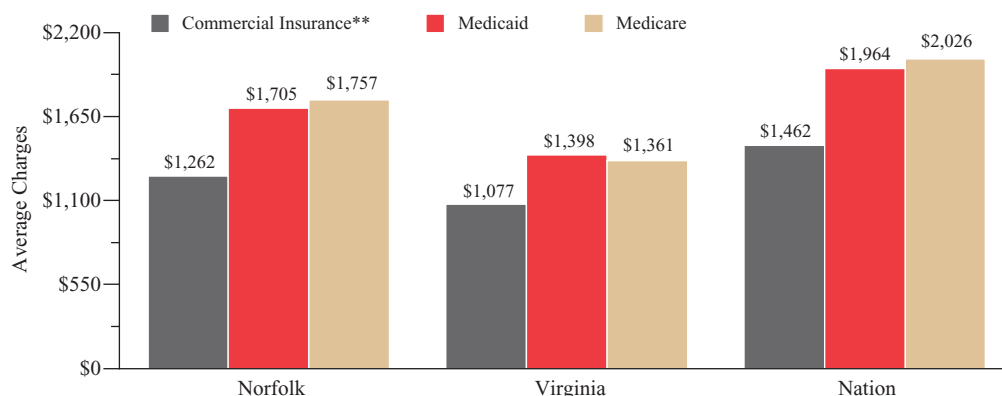
HOSPITAL INPATIENT CHARGES PER YEAR FOR TYPE 2 DIABETES PATIENTS, BY PAYER TYPE*

MARKET	Commercial Insurance**		Medicaid		Medicare	
	2007	2008	2007	2008	2007	2008
Norfolk	\$24,874	\$26,143	\$34,645	\$59,705	\$28,149	\$32,910
Virginia	31,274	27,217	40,872	47,690	25,832	29,622
NATION	\$43,606	\$45,185	\$47,039	\$49,015	\$48,839	\$50,420

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

MARKET	Commercial Insurance**		Medicaid		Medicare	
	2007	2008	2007	2008	2007	2008
Norfolk	\$2,924	\$3,222	\$4,263	\$2,292	\$3,386	\$3,860
Virginia	3,230	2,995	3,384	2,277	3,062	3,621
NATION	\$4,030	\$4,440	\$4,317	\$4,711	\$5,103	\$5,804

HOSPITAL EMERGENCY ROOM CHARGES PER YEAR FOR TYPE 2 DIABETES PATIENTS, BY PAYER TYPE, 2008*



COMM. INSURANCE INPATIENT CHARGES ARE LOW IN VIRGINIA

Average hospital inpatient charges for Type 2 diabetes patients in the Commonwealth of Virginia with commercial insurance were \$27,217 in 2008, down from \$31,274 in 2007, and considerably lower than the national mark (\$45,185). By comparison, average inpatient charges for Type 2 diabetes patients in Virginia with Medicare (to \$29,622 from \$25,832 in 2007) and Medicaid (to \$47,690 from \$40,872) coverage grew notably over this time.

VIRGINIA MEDICAID OUTPATIENT CHARGE AVERAGE DECREASES

In 2008, average hospital outpatient charges for Type 2 diabetes patients in the Norfolk MSA covered by Medicaid were \$2,277, down significantly from \$3,384 in 2007. In contrast, Type 2 diabetes patients nationally saw average hospital outpatient charges increase sharply during this period, to \$4,711 from \$4,317 the previous year.

Data source: SDI © 2009

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

* 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

HOSPITAL INPATIENT CHARGES RISE FOR RICHMOND PATIENTS

Average hospital inpatient charges per year for Type 2 diabetes patients in the Richmond MSA were \$5,077 in 2008, up notably from \$4,226 in 2007, and highest among the six Virginia markets profiled. Such charges were a comparatively low \$1,809 per patient per year in Lynchburg and \$1,631 in Danville. Nationwide, hospital inpatient charges rose to \$6,570 per year in 2008 from \$6,070 in 2007.

OUTPATIENT OFFICE CHARGES CLIMB FOR VIRGINIA PATIENTS

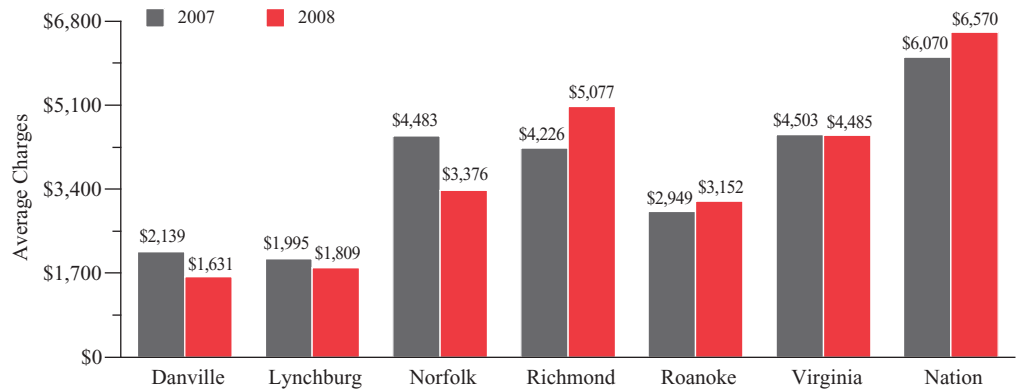
Between 2007 (\$1,147) and 2008 (\$1,878), average professional office charges for Type 2 diabetes patients in Virginia rose sharply. In spite of this increase, such charges were considerably lower than the national average (to \$3,399 from \$2,818 in 2007). Of the five Virginia local markets listed, average professional office charges were highest in Roanoke (\$2,064) and lowest in Danville (\$1,147).

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

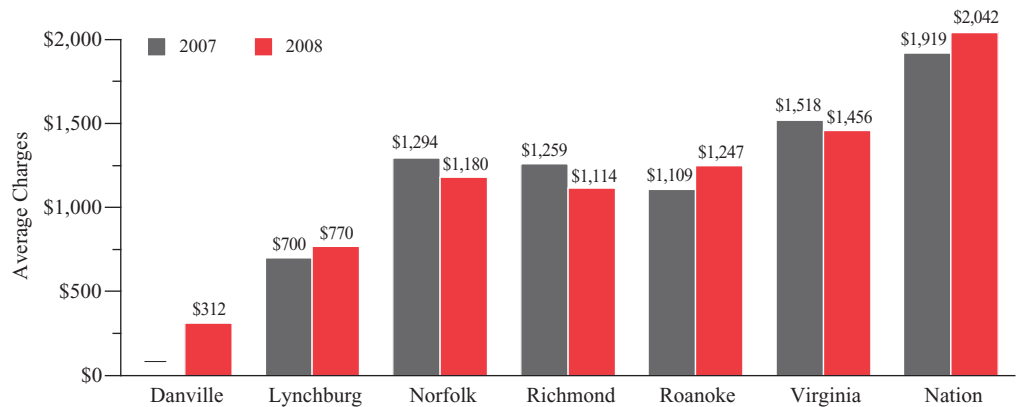
PROFESSIONAL CHARGES PER YEAR FOR TYPE 2 DIABETES PATIENTS*

MARKET	Ambulatory Surgery Center		Emergency Room		Hospital Inpatient		Hospital Outpatient		Office/Clinic	
	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008
Danville	—	—	\$512	\$1,061	\$2,139	\$1,631	—	\$312	\$747	\$1,147
Lynchburg	—	—	196	—	1,995	1,809	\$700	770	1,258	1,975
Norfolk	—	\$2,368	186	145	4,483	3,376	1,294	1,180	1,487	1,762
Richmond	\$3,402	3,193	203	222	4,226	5,077	1,259	1,114	849	1,516
Roanoke	3,713	3,299	348	211	2,949	3,152	1,109	1,247	1,054	2,064
Virginia	3,793	2,916	354	359	4,503	4,485	1,518	1,456	1,147	1,878
NATION	\$3,055	\$3,077	\$647	\$722	\$6,070	\$6,570	\$1,919	\$2,042	\$2,818	\$3,399

PROFESSIONAL INPATIENT CHARGES PER YEAR FOR TYPE 2 DIABETES PATIENTS*



PROFESSIONAL OUTPATIENT CHARGES PER YEAR FOR TYPE 2 DIABETES PATIENTS*



Data source: SDI © 2009

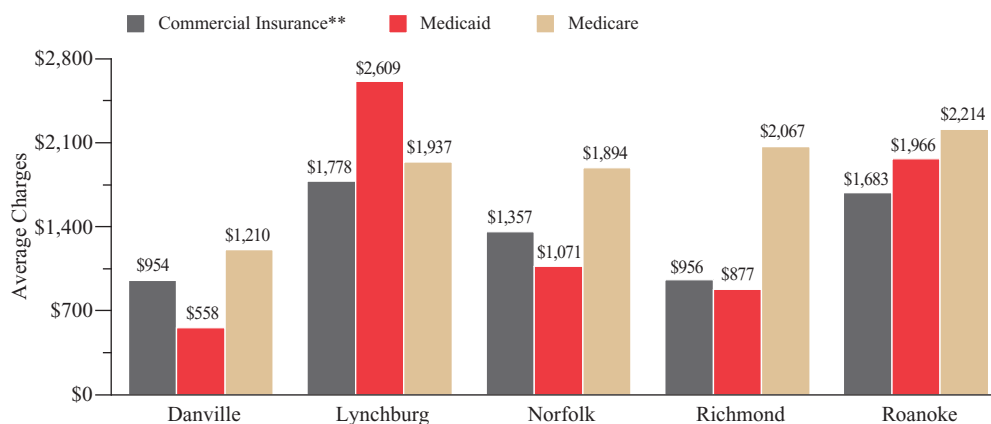
PROFESSIONAL INPATIENT CHARGES PER YEAR FOR TYPE 2 DIABETES PATIENTS, BY PAYER TYPE*

MARKET	Commercial Insurance**		Medicaid		Medicare	
	2007	2008	2007	2008	2007	2008
Danville	\$2,003	\$1,223	\$1,179	\$1,392	\$2,074	\$1,666
Lynchburg	3,061	1,741	2,328	1,999	1,667	1,689
Norfolk	3,596	2,862	3,516	2,744	4,394	3,230
Richmond	3,243	3,697	3,079	3,998	4,437	5,220
Roanoke	3,151	3,203	3,468	2,477	2,567	2,832
Virginia	3,504	3,530	4,533	3,288	4,468	4,488
NATION	\$4,916	\$5,211	\$4,963	\$5,224	\$5,823	\$6,326

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

MARKET	Commercial Insurance**		Medicaid		Medicare	
	2007	2008	2007	2008	2007	2008
Danville	\$872	\$416	—	\$130	—	\$206
Lynchburg	1,362	1,413	\$1,005	—	\$615	652
Norfolk	1,124	981	1,281	883	1,358	1,284
Richmond	1,083	974	1,391	851	1,361	1,220
Roanoke	1,354	1,828	—	427	713	684
Virginia	1,415	1,437	1,004	777	1,487	1,354
NATION	\$1,797	\$1,934	\$1,388	\$1,421	\$1,676	\$1,720

PROFESSIONAL OFFICE/CLINIC CHARGES PER YEAR FOR TYPE 2 DIABETES PATIENTS, BY PAYER TYPE, 2008*



INPATIENT MEDICAID CHARGES FALL FOR VIRGINIA PATIENTS

Professional inpatient charges generated by providers delivering care to Virginia Type 2 diabetes patients with Medicaid coverage fell notably, to \$3,288 in 2008 from \$4,533 in 2007. Although Type 2 diabetes patients in Richmond reported the highest professional inpatient charges among the Virginia markets profiled, such charges were still substantially lower than the national average (\$5,224).

OUTPATIENT CHARGES ARE HIGHEST FOR COMMERCIAL PAYERS

Type 2 diabetes patients in the Commonwealth of Virginia with commercial insurance coverage generated average professional outpatient charges of \$1,437 in 2008, up only fractionally from \$1,415 in 2007, but still the highest amount by payer type. By comparison, average professional outpatient charges were highest, by payer type, for Type 2 diabetes patients with Medicare coverage in both Norfolk and Richmond.

* 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.

Data source: SDI © 2009

COMMONWEALTH INSULIN USE TRAILS NATIONAL RATE

Although all six Virginia markets profiled reported an increase, between 2007 and 2008, in any insulin product use within their respective Type 2 diabetes patient populations, these patient shares continued to trail the national rate (36.4%), with one notable exception: Roanoke, in which the Type 2 diabetes patient any insulin product use share inched up, to 43.2% from 43.1% the previous year.

NON-INSULIN USE IN ROANOKE IS LOW

The share of Roanoke Type 2 diabetes patients using any non-insulin antidiabetic product was just 25.5%, up fractionally from 24.0% in 2007, but still substantially lower than the other five Commonwealth and the nation's product use patient shares. Roanoke also posted the lowest Type 2 diabetes patient use shares for biguanides (44.0%) and sulfonylureas (34.5%) of the seven markets profiled.

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

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.

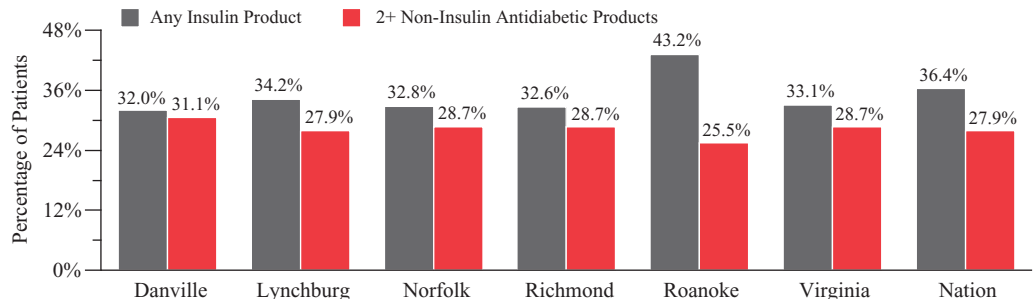
PERCENTAGE OF TYPE 2 DIABETES PATIENTS USING INSULIN THERAPIES

MARKET	Any Insulin Product		Intermediate-Acting Insulin		Long-Acting Insulin		Short-Acting Insulin		Mixed Insulin	
	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008
Danville	30.1%	32.0%	5.0%	4.8%	15.2%	16.2%	9.6%	10.7%	10.3%	10.7%
Lynchburg	33.0	34.2	4.1	3.6	16.6	18.6	12.2	13.1	7.9	8.0
Norfolk	31.5	32.8	3.2	2.7	16.9	18.2	9.8	10.9	10.0	9.8
Richmond	31.8	32.6	6.3	5.6	14.4	16.0	12.0	12.5	8.7	8.4
Roanoke	43.1	43.2	5.0	4.6	19.9	21.7	17.2	17.3	12.9	11.9
Virginia	32.6	33.1	4.3	3.8	17.0	18.1	11.9	12.7	8.6	8.3
NATION	35.6%	36.4%	4.7%	4.0%	19.1%	21.2%	15.2%	16.1%	8.9%	8.5%

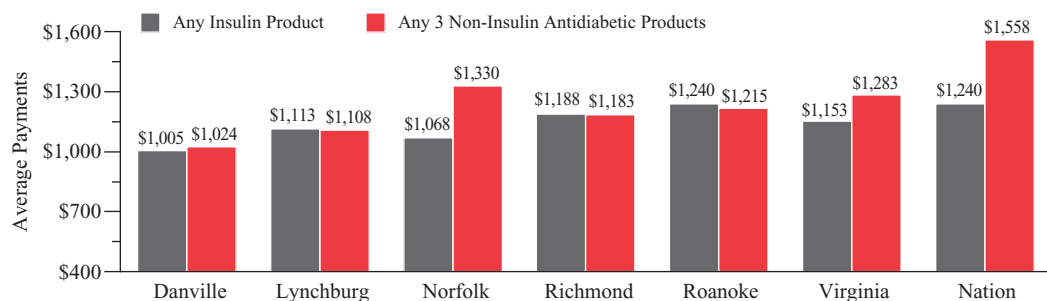
PERCENTAGE OF TYPE 2 DIABETES PATIENTS USING NON-INSULIN ANTIDIABETIC THERAPIES

MARKET	Any Non-Insulin Antidiabetic Product		Biguanides		Sulfonylureas		Insulin Sensitizing Agents	
	2007	2008	2007	2008	2007	2008	2007	2008
Danville	86.3%	84.9%	49.9%	51.5%	45.2%	46.6%	21.9%	17.6%
Lynchburg	81.4	81.8	47.3	49.4	43.1	42.0	22.4	17.5
Norfolk	84.9	83.6	44.9	45.8	40.2	38.3	26.0	18.9
Richmond	82.6	81.8	52.1	52.9	38.1	37.1	20.9	15.0
Roanoke	74.6	75.3	42.3	44.0	35.1	34.5	22.2	15.2
Virginia	83.6	82.9	48.2	49.8	39.0	37.6	23.8	17.0
NATION	84.8%	84.5%	52.5%	54.2%	39.5%	39.0%	26.0%	19.4%

PERCENTAGE OF 2 DIABETES PATIENTS, BY TYPE OF THERAPY, 2008*



AVERAGE PAYMENTS PER YEAR PER TYPE 2 DIABETES PATIENT, BY TYPE OF THERAPY, 2008*



Data source: SDI © 2009

Data Methodology

SDI generated data for this **Managed Care Digest Series®** database using health care professional and institutional insurance claims, representing roughly 6.5 million unique patients nationally in 2008 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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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.evaluate8.org

VBCH evaluates and reports data on Virginia health plans using the eValue8 RFI tool, a product of the National Business Coalition on Health. VBCH's eValue8 User Group, a subset of employers using eV8, has focused on: health plan improvement on the identification and treatment of diabetes; HEDIS increase in performance for diabetes and related chronic conditions; adult immunization rates, adoption of interoperable health information technology (HIT), and increasing the number of hospitals in the plans' network which participate in the Leapfrog Hospital Survey. If you and your plan are not participating in eValue8, we invite you to do so. And, to request a published report of the eValue8 data, contact the VBCH.



www.healthmaprx.com

HealthMapRx™ for diabetes was launched by VBCH with two employers in Chesapeake, Virginia. **HealthMapRx™** engages the employer, the employee with diabetes, the pharmacist as coach, the diabetes educator and the physician. Helping employees manage their diabetes is a worthy investment for employers. When chronic conditions are under control, employees are healthier and more productive, and health care costs decline. The key to controlling chronic conditions is through patient self-management—educating and coaching patients to appropriately manage their disease by setting goals that pertain to health outcomes and lifestyle improvement. Contact VBCH for more information and to see how you, too, can launch **HealthMapRx™** at your worksite. **HealthMapRx™** is product of the American Pharmacists Association (APhA) Foundation.



www.leapfroggroup.org

VBCH is the Virginia-wide roll out leader for **The Leapfrog Group**, which emerged from the Business Roundtable in response to the Institute of Medicine (IOM) report that 100,000 preventable mistakes occur annually in US hospitals. **Leapfrog** and VBCH publicly reports hospital quality and patient safety data collected voluntarily through the **Leapfrog Hospital Survey**. Employers exercise their purchasing power when they encourage employees, especially those with chronic disease such as diabetes, to use hospitals that publicly report quality and safety data. Significant scientific evidence shows that adherence to the **Leapfrog Hospital Survey** practices reduce preventable medical mistakes, saving lives and reducing injuries. Contact VBCH to learn how your hospitals can participate.



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 diabetes and gestational diabetes education, support groups, weight management, nutrition education, diabetes health information, and public and community health resources.

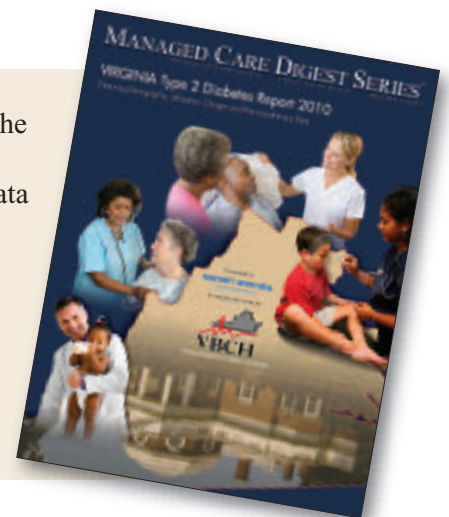
VIRGINIA TYPE 2 DIABETES REPORT 2009

The Virginia Business Coalition on Health is pleased to bring you the second edition of the **Virginia Type 2 Diabetes Report 2009**.

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 2010.



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