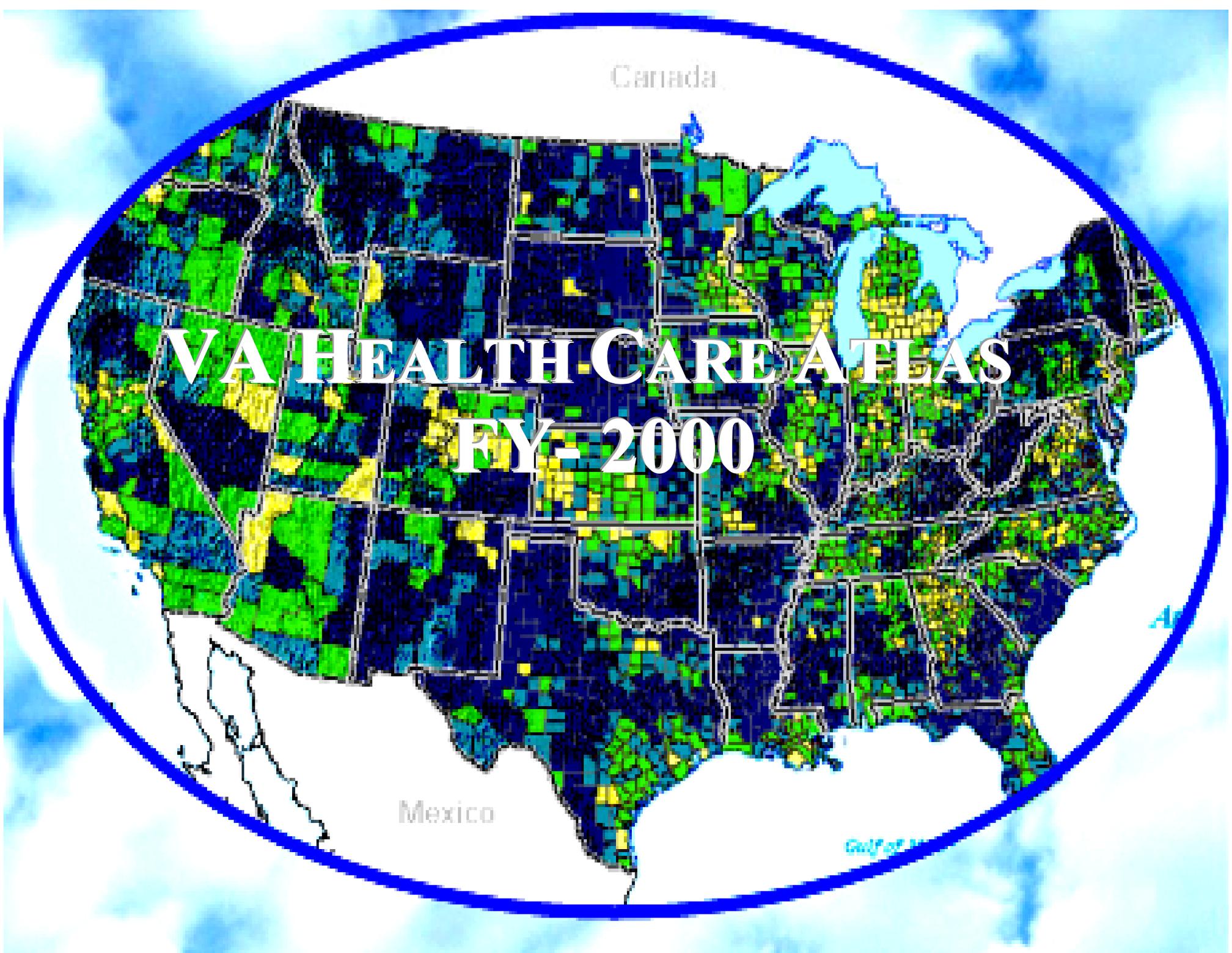


Canada

# VA HEALTH CARE ATLAS FY-2000

Mexico

Gulf of Mexico



## Diagnostic Codes Used to Define Cohort (Colorectal Cancer)

ICD-9 code	Description
153	MALIGNANT NEOPLASM COLON*
1530	MALIGNANT NEOPLASM OF HEPATIC FLEXURE
1531	MALIGNANT NEOPLASM OF TRANSVERSE COLON
1532	MALIGNANT NEOPLASM OF DESCENDING COLON
1533	MALIGNANT NEOPLASM OF SIGMOID COLON
1534	MALIGNANT NEOPLASM OF CECUM
1535	MALIGNANT NEOPLASM OF APPENDIX VERMIFORMIS
1536	MALIGNANT NEOPLASM OF ASCENDING COLON
1537	MALIGNANT NEOPLASM OF SPLENIC FLEXURE
1538	MALIGNANT NEOPLASM OF OTHER SPECIFIED SITES OF LARGE INTESTINE
1539	MALIGNANT NEOPLASM OF COLON, UNSPECIFIED
154	MALIG NEO RECTUM/ANUS*
1540	MALIGNANT NEOPLASM OF RECTOSIGMOID JUNCTION
1541	MALIGNANT NEOPLASM OF RECTUM
1542	MALIGNANT NEOPLASM OF ANAL CANAL
1543	MALIGNANT NEOPLASM OF ANUS, UNSPECIFIED
1548	MALIGNANT NEOPLASM OF OTHER SITES OF RECTUM, RECTOSIGMOID JUNCTION, A

### Highlights

#### Table 8.1

### National Overview

In FY-2000, the VHA had 27,501 Colorectal Cancer patients with either a primary or secondary diagnostic code of one or more of the codes listed above. This number represents less than one percent (.83%) of the total patient population during the fiscal year (Table 8.1). As with most patients seen in the VHA, the majority of patients were male (98.12%), with only 1.87% female.

Older age groups are more highly represented than younger ages -- Less than 2% of Colorectal Cancer patients were in the age bracket under 45, 8.58% were aged 45-54, and 16.23% were between the ages of 55-64; on the other end of the age spectrum, 38.05% of Colorectal Cancer patients were aged 65-74 and an additional 35.45% were 75 years of age or older. The proportion of Colorectal Cancer patients who were married is about sixty percent nationally (59.2%). The "Means Test" categories show that 30.7% were Priority 1 - 3 (service-connected injured) veterans and 54.7% were Priority 5 (low income).

### VISN Overview

The volume of patients with Colorectal Cancer ranged from a high of 3,106 individuals in Sunshine network (VISN 8) to a low of 558 in the Central Plain network (VISN 14). Most VISNs had less than 1 percent of their patient population fall into this disease cohort. Two networks, however, had over 1 percent Colorectal Cancer patients as a percentage of their total patient population: Upstate New York (VISN 2) and Sunshine (VISN 8). The percentage of Colorectal Cancer patients who are married ranges from a low of 44.09% in the Desert Pacific (VISN 22) to a high of 65.59% in the Central Plains network (VISN 14). The majority of patients with Colorectal Cancer are in Priority Group 5 (low income) across all VISNs. The

percentage of the total number of Colorectal Cancer patients who are in the low income categories ranges from a low of 45.48% in the New York/New Jersey network (VISN 3) to a high of 62.99% in the Ohio network (VISN 10).

#### Table 8.2

This table compares utilization by the Colorectal Cancer **primary** diagnosis group for all conditions with utilization by all VA patients for all conditions. Note that for this table, only patients who had a primary diagnosis of Colorectal Cancer were selected. If a patient had Colorectal Cancer as a secondary diagnosis only, he/she is not included. Further, for our primary diagnosis Colorectal Cancer group we examined all utilization that occurred during the fiscal year, both Colorectal Cancer-specific and all other non-Colorectal Cancer related medical care obtained.

As an example of what the data show and how to interpret the findings, examine the South Central network (VISN 16). In this particular network, only .64% of the total patients seen at a VA facility in fiscal year 2000 had a primary diagnosis of Colorectal Cancer. This group of patients accounted for 3.44% of the total bed-days of care in VISN 16, 3.10% of total discharges in VISN 16, and 1.29% of outpatient visits in VISN 16 made by all patients of VA health care services in the network for all medical conditions.

#### Table 8.3

Table 8.3 is similar to Table 8.2 except that patients who only had a **secondary** diagnosis of Colorectal Cancer are examined rather than patients who had a primary diagnosis. This table compares utilization by the Colorectal Cancer secondary diagnosis group for all health conditions they had during the year (i.e., includes both Colorectal Cancer-specific utilization and utilization for all other non-Colorectal Cancer care the patient may have received) with utilization by all VISN patients for all conditions.

Using the example of VISN 16, the data can be interpreted as follows: .24% of the patients in VISN 16 had at most a secondary diagnosis of Colorectal Cancer, but never a primary diagnosis. This group of patients accounted for .35% of the total bed-days of care, .40% of total discharges and .27% of outpatient visits utilized by all patients in the network for all conditions.

#### Table 8.4

Table 8.4 compares resource utilization specifically directed at treating Colorectal Cancer. In other words, we examine the utilization for which the primary diagnosis (DXLSF) was a defining diagnosis for the Colorectal Cancer, with utilization for all conditions by all patients in each network.

For example, in VISN 16, .64% of the patients had some utilization for which the primary diagnosis was Colorectal Cancer. Utilization specifically directed at treating the Colorectal Cancer accounted for 1.4% of all bed-days of care, .95% of all discharges, and .31% of all outpatient visits.

#### Table 8.5

Table 8.5 combines the information from Tables 8.2 and 8.4, comparing utilization by the Colorectal Cancer primary diagnosis group specifically directed at treating their condition with utilization by this same group for all conditions. For example, in VISN 16, .64% (N=1,881) of the patients had some utilization for Colorectal Cancer. These patients accounted for 15,622 bed-days of care in FY-2000, of which 6,362 or about 41%, were utilized specifically for treating their Colorectal Cancer (i.e., primary diagnosis (DXLSF) of Colorectal Cancer). Similarly, approximately 31% of the discharges for patients in the Colorectal Cancer primary diagnosis group

resulted from inpatient stays to treat their disease, and 23.67% of the outpatient visits made by these patients were for specifically for the treatment of Colorectal Cancer.

#### Costs

Cost data are reported for utilization of VA services by VA patients with Colorectal Cancer in Table 8.6 and Table 8.7. Veterans with Colorectal Cancer are identified by a Colorectal Cancer diagnosis for at least one inpatient or outpatient service received. We separately report for veterans who had at least one primary diagnosis of Colorectal Cancer and veterans whose only diagnoses of Colorectal Cancer are secondary to another diagnosis. Costs are for VA utilization and include inpatient, outpatient, and pharmacy services for all causes, not just for Colorectal Cancer - specific use. That is, we report all VA costs for all causes for individuals identified as having Colorectal Cancer.

There were 27,497 individuals with at least one primary or secondary diagnosis of Colorectal Cancer for whom cost data were available, and these costs averaged \$14,422 per veteran. Breaking these costs down by whether or not the veteran had at least one primary diagnosis of Colorectal, results in an average cost of \$17,078 per veteran for those with at least one primary care diagnosis of Colorectal Cancer and \$7,428 per veteran for those patients with only secondary diagnoses.

Focusing on those patients with at least one primary diagnosis of Colorectal Cancer, the \$17,078 costs per veteran are distributed as follows: 56.4% are for inpatient medical/surgical services, 9.3% are for other inpatient services, 26.1% are for outpatient services, and 27.7% are for pharmaceutical services. Across VISNs, overall costs per veteran with a primary diagnosis of Colorectal Cancer ranged from \$12,667 (VISN 8) to \$21,409 (VISN 22) per veteran.

# Colorectal Cancer

**Table 8.1:  
Overall Prevalence Statistics – Colorectal Cancer, FY-2000**

Veterans Integrated Service Network	Total Number of Patients	Patients with Colorectal Cancer		Gender (%)		Age Group (%)					Marital Status (%)		Means Test Status (%)	
		N	(%)	M	F	<45	45-54	55-64	65-74	75+	Married	Not Married	Service Connected	Low Income
<b>New England (1)</b>	158,204	1,503	0.95	97.60	2.40	1.46	7.92	14.50	38.59	37.52	54.29	44.91	36.33	49.57
<b>Upstate NY (2)</b>	100,499	1,099	1.09	98.18	1.82	0.82	6.10	12.83	39.31	40.95	62.42	37.12	28.66	53.78
<b>NY/NJ (3)</b>	166,593	1,627	0.98	99.08	0.92	0.55	5.10	11.49	39.77	43.09	56.05	42.84	27.17	45.48
<b>Stars and Stripes (4)</b>	202,472	1,713	0.85	98.13	1.87	1.28	8.81	13.31	39.99	36.60	58.79	40.69	29.48	54.17
<b>Capitol (5)</b>	88,163	815	0.92	97.18	2.82	2.09	8.10	11.90	40.25	37.67	49.08	50.06	25.64	62.09
<b>Mid-Atlantic (6)</b>	161,081	1,462	0.91	98.02	1.92	2.33	10.12	16.14	40.56	30.85	64.16	35.36	34.88	53.97
<b>Atlantic (7)</b>	201,514	1,329	0.66	97.37	2.63	3.54	12.04	20.69	36.12	27.61	60.35	38.68	35.06	53.50
<b>Sunshine (8)</b>	308,906	3,106	1.01	97.49	2.51	1.61	7.24	16.68	36.70	37.73	63.39	34.48	35.87	50.39
<b>Mid-South (9)</b>	165,501	1,522	0.92	99.15	0.85	1.58	10.18	17.41	39.03	31.73	64.59	35.02	30.42	59.20
<b>Ohio (10)</b>	117,463	770	0.66	97.66	2.34	1.69	9.87	14.55	41.17	32.73	52.99	46.36	27.40	62.99
<b>Vets in Partnership (11)</b>	142,393	1,102	0.77	98.55	1.45	1.81	8.08	16.79	39.11	34.21	57.53	42.38	24.59	58.44
<b>Great Lakes (12)</b>	142,079	1,335	0.94	98.65	1.35	1.05	7.72	16.18	36.93	38.13	53.71	46.07	22.32	62.77
<b>Upper Midwest (13)</b>	96,279	609	0.63	99.01	0.99	1.31	7.39	14.94	39.41	36.95	60.76	38.10	28.57	52.38
<b>Central Plains (14)</b>	73,699	558	0.76	97.49	2.51	1.08	5.91	13.98	41.94	37.10	65.59	34.05	24.01	53.41
<b>Heartland (15)</b>	148,229	1,347	0.91	98.29	1.71	2.00	7.50	14.03	40.83	35.63	63.92	35.63	24.80	57.98
<b>South Central (16)</b>	294,286	2,596	0.88	98.61	1.39	2.20	9.28	18.76	37.79	31.97	61.21	37.67	30.12	59.71
<b>Heart of Texas (17)</b>	151,601	1,223	0.81	98.20	1.80	2.29	11.94	18.64	35.08	32.05	62.80	36.39	40.56	50.70
<b>Southwest (18)</b>	154,764	1,120	0.72	98.21	1.79	1.07	6.88	19.55	36.07	36.43	62.14	37.14	35.18	50.71
<b>Rocky Mt. (19)</b>	95,866	630	0.66	98.10	1.90	0.79	9.21	18.10	37.30	34.60	64.44	34.60	27.46	55.08
<b>Northwest (20)</b>	143,215	856	0.60	97.55	2.45	1.40	10.40	17.41	37.03	33.76	54.67	44.74	35.28	51.87
<b>Sierra Pacific (21)</b>	149,020	1,319	0.89	97.57	2.43	1.29	9.33	17.51	33.36	38.51	52.39	46.93	33.74	52.84
<b>Desert Pacific (22)</b>	178,204	1,184	0.66	97.64	2.36	2.62	12.67	19.85	31.50	33.36	44.09	55.24	33.02	55.41
<b>National</b>	3,314,672	27,501	0.83	98.12	1.87	1.68	8.58	16.23	38.05	35.45	59.22	39.97	30.70	54.70

**Table 8.2:  
Overall Resource Utilization – Colorectal Cancer (Primary Diagnosis Group) Compared to All Users, FY-2000**

Veterans Integrated Service Network (VISN)	Total Patients		Bed Days of Care			Discharges			Outpatient Visits			
	Total Patients Colorectal Cancer		Total	Colorectal Cancer		Total	Colorectal Cancer		Total	Colorectal Cancer		
	N	N	%	N	N	%	N	N	%	N	N	%
New England (1)	158,204	1,182	0.75	303,134	6,517	2.15	24,413	731	2.99	1,990,550	27,849	1.40
Upstate NY (2)	100,499	680	0.68	120,203	4,077	3.39	11,871	398	3.35	1,093,796	12,953	1.18
NY/NJ (3)	166,593	1,045	0.63	405,186	7,472	1.84	24,128	644	2.67	1,854,064	21,712	1.17
Stars and Stripes (4)	202,472	1,239	0.61	284,688	7,412	2.60	24,122	744	3.08	1,846,937	24,817	1.34
Capitol (5)	88,163	591	0.67	222,405	4,356	1.96	17,107	439	2.57	1,007,572	12,661	1.26
Mid-Atlantic (6)	161,081	1,112	0.69	361,832	7,700	2.13	31,256	801	2.56	1,491,680	20,148	1.35
Atlantic (7)	201,514	1,017	0.50	369,514	7,112	1.92	29,275	718	2.45	1,891,761	18,133	0.96
Sunshine (8)	308,906	2,204	0.71	392,501	12,084	3.08	41,850	1,423	3.40	3,109,217	42,562	1.37
Mid-South (9)	165,501	1,123	0.68	316,108	7,271	2.30	34,579	835	2.41	1,483,519	19,165	1.29
Ohio (10)	117,463	542	0.46	191,574	4,040	2.11	18,945	398	2.10	1,327,847	10,856	0.82
Vets in Partnership (11)	142,393	754	0.53	311,786	5,292	1.70	23,779	544	2.29	1,368,643	12,967	0.95
Great Lakes (12)	142,079	1,087	0.77	334,130	8,558	2.56	30,157	954	3.16	1,715,017	24,476	1.43
Upper Midwest (13)	96,279	456	0.47	107,644	2,778	2.58	16,092	332	2.06	934,533	7,904	0.85
Central Plains (14)	73,699	343	0.47	76,697	1,746	2.28	9,898	201	2.03	674,604	5,516	0.82
Heartland (15)	148,229	916	0.62	211,861	4,799	2.27	25,568	550	2.15	1,458,394	16,305	1.12
South Central (16)	294,286	1,881	0.64	454,315	15,622	3.44	47,751	1,480	3.10	2,750,358	35,570	1.29
Heart of Texas (17)	151,601	976	0.64	297,463	7,514	2.53	25,932	760	2.93	1,544,273	18,748	1.21
Southwest (18)	154,764	781	0.50	167,362	3,982	2.38	23,822	492	2.07	1,574,259	15,514	0.99
Rocky Mt. (19)	95,866	457	0.48	132,102	2,436	1.84	15,065	315	2.09	959,415	7,564	0.79
Northwest (20)	143,215	575	0.40	181,076	3,564	1.97	24,296	417	1.72	1,488,150	10,772	0.72
Sierra Pacific (21)	149,020	999	0.67	214,370	4,720	2.20	19,163	553	2.89	1,630,530	19,872	1.22
Desert Pacific (22)	178,204	957	0.54	231,584	5,634	2.43	25,132	651	2.59	2,119,773	21,941	1.04
National	3,314,672	19,931	0.60	5,687,535	134,686	2.37	544,201	14,380	2.64	35,314,892	408,005	1.16

**Table 8.3:  
Overall Resource Utilization – Colorectal Cancer (Secondary Diagnosis Group) Compared to All Users, FY-2000**

Veterans Integrated Service Network (VISN)	Total Patients		Bed Days of Care			Discharges			Outpatient Visits			
	Total Patients Colorectal Cancer		Total	Colorectal Cancer		Total	Colorectal Cancer		Total	Colorectal Cancer		
	N	N	%	N	N	%	N	N	%	N	N	%
New England (1)	158,204	321	0.20	303,134	899	0.30	24,413	80	0.33	1,990,550	4,203	0.21
Upstate NY (2)	100,499	419	0.42	120,203	728	0.61	11,871	76	0.64	1,093,796	5,440	0.50
NY/NJ (3)	166,593	582	0.35	405,186	1,011	0.25	24,128	92	0.38	1,854,064	7,016	0.38
Stars and Stripes (4)	202,472	474	0.23	284,688	636	0.22	24,122	88	0.36	1,846,937	3,957	0.21
Capitol (5)	88,163	224	0.25	222,405	1,362	0.61	17,107	96	0.56	1,007,572	3,089	0.31
Mid-Atlantic (6)	161,081	350	0.22	361,832	1,310	0.36	31,256	131	0.42	1,491,680	3,550	0.24
Atlantic (7)	201,514	312	0.15	369,514	1,047	0.28	29,275	96	0.33	1,891,761	3,451	0.18
Sunshine (8)	308,906	902	0.29	392,501	2,670	0.68	41,850	200	0.48	3,109,217	9,775	0.31
Mid-South (9)	165,501	399	0.24	316,108	1,553	0.49	34,579	136	0.39	1,483,519	4,103	0.28
Ohio (10)	117,463	228	0.19	191,574	507	0.26	18,945	52	0.27	1,327,847	2,539	0.19
Vets in Partnership (11)	142,393	348	0.24	311,786	926	0.30	23,779	110	0.46	1,368,643	3,899	0.28
Great Lakes (12)	142,079	248	0.17	334,130	951	0.28	30,157	86	0.29	1,715,017	3,209	0.19
Upper Midwest (13)	96,279	153	0.16	107,644	551	0.51	16,092	59	0.37	934,533	1,751	0.19
Central Plains (14)	73,699	215	0.29	76,697	554	0.72	9,898	59	0.60	674,604	2,311	0.34
Heartland (15)	148,229	431	0.29	211,861	646	0.30	25,568	92	0.36	1,458,394	4,225	0.29
South Central (16)	294,286	715	0.24	454,315	1,580	0.35	47,751	189	0.40	2,750,358	7,295	0.27
Heart of Texas (17)	151,601	247	0.16	297,463	781	0.26	25,932	71	0.27	1,544,273	3,072	0.20
Southwest (18)	154,764	339	0.22	167,362	560	0.33	23,822	90	0.38	1,574,259	4,579	0.29
Rocky Mt. (19)	95,866	173	0.18	132,102	218	0.17	15,065	36	0.24	959,415	1,854	0.19
Northwest (20)	143,215	281	0.20	181,076	462	0.26	24,296	75	0.31	1,488,150	3,437	0.23
Sierra Pacific (21)	149,020	320	0.21	214,370	323	0.15	19,163	59	0.31	1,630,530	3,960	0.24
Desert Pacific (22)	178,204	227	0.13	231,584	585	0.25	25,132	70	0.28	2,119,773	3,813	0.18
National	3,314,672	7,570	0.23	5,687,535	19,860	0.35	544,201	2,043	0.38	35,314,892	90,528	0.26

**Table 8.4:  
Resource Utilization for Treatment of Colorectal Cancer (Primary Diagnosis Group) Compared to Overall Resource Utilization  
by All Users, FY-2000**

Veterans Integrated Service Network (VISN)	Total Patients		Bed Days of Care			Discharges			Outpatient Visits			
	Total Patients Colorectal Cancer		Total	Colorectal Cancer		Total	Colorectal Cancer		Total	Colorectal Cancer		
	N	N	%	N	N	%	N	N	%	N	N	%
New England (1)	158,204	1,182	0.75	303,134	2,051	0.68	24,413	160	0.66	1,990,550	4,666	0.23
Upstate NY (2)	100,499	680	0.68	120,203	1,562	1.30	11,871	109	0.92	1,093,796	2,758	0.25
NY/NJ (3)	166,593	1,045	0.63	405,186	2,980	0.74	24,128	186	0.77	1,854,064	4,052	0.22
Stars and Stripes (4)	202,472	1,239	0.61	284,688	3,129	1.10	24,122	201	0.83	1,846,937	5,107	0.28
Capitol (5)	88,163	591	0.67	222,405	1,639	0.74	17,107	128	0.75	1,007,572	2,570	0.26
Mid-Atlantic (6)	161,081	1,112	0.69	361,832	2,668	0.74	31,256	207	0.66	1,491,680	4,722	0.32
Atlantic (7)	201,514	1,017	0.50	369,514	3,308	0.90	29,275	220	0.75	1,891,761	4,257	0.23
Sunshine (8)	308,906	2,204	0.71	392,501	3,924	1.00	41,850	348	0.83	3,109,217	8,762	0.28
Mid-South (9)	165,501	1,123	0.68	316,108	3,013	0.95	34,579	243	0.70	1,483,519	4,413	0.30
Ohio (10)	117,463	542	0.46	191,574	1,265	0.66	18,945	108	0.57	1,327,847	1,792	0.13
Vets in Partnership (11)	142,393	754	0.53	311,786	1,911	0.61	23,779	170	0.71	1,368,643	3,159	0.23
Great Lakes (12)	142,079	1,087	0.77	334,130	2,898	0.87	30,157	268	0.89	1,715,017	5,349	0.31
Upper Midwest (13)	96,279	456	0.47	107,644	1,367	1.27	16,092	116	0.72	934,533	1,607	0.17
Central Plains (14)	73,699	343	0.47	76,697	881	1.15	9,898	78	0.79	674,604	1,049	0.16
Heartland (15)	148,229	916	0.62	211,861	2,091	0.99	25,568	178	0.70	1,458,394	3,166	0.22
South Central (16)	294,286	1,881	0.64	454,315	6,362	1.40	47,751	455	0.95	2,750,358	8,420	0.31
Heart of Texas (17)	151,601	976	0.64	297,463	2,233	0.75	25,932	195	0.75	1,544,273	4,092	0.26
Southwest (18)	154,764	781	0.50	167,362	1,614	0.96	23,822	158	0.66	1,574,259	3,503	0.22
Rocky Mt. (19)	95,866	457	0.48	132,102	1,167	0.88	15,065	118	0.78	959,415	1,671	0.17
Northwest (20)	143,215	575	0.40	181,076	1,287	0.71	24,296	126	0.52	1,488,150	2,158	0.15
Sierra Pacific (21)	149,020	999	0.67	214,370	1,838	0.86	19,163	161	0.84	1,630,530	3,754	0.23
Desert Pacific (22)	178,204	957	0.54	231,584	1,839	0.79	25,132	159	0.63	2,119,773	4,117	0.19
National	3,314,672	19,931	0.60	5,687,535	51,027	0.90	544,201	4,092	0.75	35,314,892	85,144	0.24

**Table 8.5:  
Resource Utilization for Treatment of Colorectal Cancer Compared to Overall Utilization by the Colorectal Cancer Cohort  
(Primary Diagnosis Group), FY-2000**

Veterans Integrated Service Network (VISN)	Total Patients		Bed Days of Care			Discharges			Outpatient Visits			
	Total Patients Colorectal Cancer		Total	Colorectal Cancer		Total	Colorectal Cancer		Total	Colorectal Cancer		
	N	N	%	N	N	%	N	N	%	N	N	%
<b>New England (1)</b>	158,204	1,182	0.75	6,517	2,051	31.47	731	160	21.89	27,849	4,666	16.75
<b>Upstate NY (2)</b>	100,499	680	0.68	4,077	1,562	38.31	398	109	27.39	12,953	2,758	21.29
<b>NY/NJ (3)</b>	166,593	1,045	0.63	7,472	2,980	39.88	644	186	28.88	21,712	4,052	18.66
<b>Stars and Stripes (4)</b>	202,472	1,239	0.61	7,412	3,129	42.22	744	201	27.02	24,817	5,107	20.58
<b>Capitol (5)</b>	88,163	591	0.67	4,356	1,639	37.63	439	128	29.16	12,661	2,570	20.30
<b>Mid-Atlantic (6)</b>	161,081	1,112	0.69	7,700	2,668	34.65	801	207	25.84	20,148	4,722	23.44
<b>Atlantic (7)</b>	201,514	1,017	0.50	7,112	3,308	46.51	718	220	30.64	18,133	4,257	23.48
<b>Sunshine (8)</b>	308,906	2,204	0.71	12,084	3,924	32.47	1,423	348	24.46	42,562	8,762	20.59
<b>Mid-South (9)</b>	165,501	1,123	0.68	7,271	3,013	41.44	835	243	29.10	19,165	4,413	23.03
<b>Ohio (10)</b>	117,463	542	0.46	4,040	1,265	31.31	398	108	27.14	10,856	1,792	16.51
<b>Vets in Partnership (11)</b>	142,393	754	0.53	5,292	1,911	36.11	544	170	31.25	12,967	3,159	24.36
<b>Great Lakes (12)</b>	142,079	1,087	0.77	8,558	2,898	33.86	954	268	28.09	24,476	5,349	21.85
<b>Upper Midwest (13)</b>	96,279	456	0.47	2,778	1,367	49.21	332	116	34.94	7,904	1,607	20.33
<b>Central Plains (14)</b>	73,699	343	0.47	1,746	881	50.46	201	78	38.81	5,516	1,049	19.02
<b>Heartland (15)</b>	148,229	916	0.62	4,799	2,091	43.57	550	178	32.36	16,305	3,166	19.42
<b>South Central (16)</b>	294,286	1,881	0.64	15,622	6,362	40.72	1,480	455	30.74	35,570	8,420	23.67
<b>Heart of Texas (17)</b>	151,601	976	0.64	7,514	2,233	29.72	760	195	25.66	18,748	4,092	21.83
<b>Southwest (18)</b>	154,764	781	0.50	3,982	1,614	40.53	492	158	32.11	15,514	3,503	22.58
<b>Rocky Mt. (19)</b>	95,866	457	0.48	2,436	1,167	47.91	315	118	37.46	7,564	1,671	22.09
<b>Northwest (20)</b>	143,215	575	0.40	3,564	1,287	36.11	417	126	30.22	10,772	2,158	20.03
<b>Sierra Pacific (21)</b>	149,020	999	0.67	4,720	1,838	38.94	553	161	29.11	19,872	3,754	18.89
<b>Desert Pacific (22)</b>	178,204	957	0.54	5,634	1,839	32.64	651	159	24.42	21,941	4,117	18.76
<b>National</b>	3,314,672	19,931	0.60	134,686	51,027	37.89	14,380	4,092	28.46	408,005	85,144	20.87

**Table 8.6:  
FY-2000 Cost of Colorectal Cancer (Primary Diagnosis)**

Veterans Integrated Service Network	No. of Patients	Outpatient		Inpatient Med/Surg		Inpatient Other		Pharmacy		Total
		\$	%	\$	%	\$	%	\$	%	
New England (1)	1185	6,081,814	30.38%	10,800,256	53.96%	1,821,118	9.10%	1,313,491	6.56%	20,016,679
Upstate NY (2)	683	2,867,887	26.75%	6,026,907	56.22%	808,629	7.54%	1,017,737	9.49%	10,721,160
NY/NJ (3)	1052	5,002,307	25.71%	11,189,418	57.50%	1,915,296	9.84%	1,352,505	6.95%	19,459,526
Stars and Stripes (4)	1240	4,612,075	23.04%	10,806,224	53.98%	2,613,807	13.06%	1,986,139	9.92%	20,018,245
Capitol (5)	591	2,994,944	27.22%	6,439,517	58.53%	973,860	8.85%	594,559	5.40%	11,002,880
Mid-Atlantic (6)	1116	4,274,322	24.67%	10,205,985	58.90%	1,427,967	8.24%	1,420,631	8.20%	17,328,905
Atlantic (7)	1021	4,383,567	26.21%	9,984,608	59.69%	1,169,331	6.99%	1,190,441	7.12%	16,727,947
Sunshine (8)	2211	9,492,502	33.89%	13,539,475	48.34%	2,091,436	7.47%	2,882,711	10.29%	28,006,123
Mid-South (9)	1127	4,368,671	26.02%	9,769,241	58.19%	1,131,255	6.74%	1,519,828	9.05%	16,788,995
Ohio (10)	547	2,347,063	23.36%	5,793,427	57.67%	1,372,709	13.66%	532,451	5.30%	10,045,649
Vets in Partnership (11)	756	3,331,106	26.39%	6,589,152	52.20%	1,681,508	13.32%	1,021,112	8.09%	12,622,878
Great Lakes (12)	1087	5,621,920	29.99%	9,754,689	52.04%	1,953,696	10.42%	1,413,040	7.54%	18,743,345
Upper Midwest (13)	458	1,855,025	22.94%	4,509,944	55.76%	957,261	11.84%	765,340	9.46%	8,087,569
Central Plains (14)	346	1,174,200	26.60%	2,710,069	61.39%	164,117	3.72%	366,137	8.29%	4,414,523
Heartland (15)	917	3,314,710	25.17%	7,852,218	59.64%	982,845	7.46%	1,016,904	7.72%	13,166,677
South Central (16)	1889	7,967,887	24.59%	18,711,583	57.74%	2,559,553	7.90%	3,169,610	9.78%	32,408,634
Heart of Texas (17)	977	3,334,199	19.08%	10,948,571	62.66%	1,744,542	9.98%	1,446,100	8.28%	17,473,411
Southwest (18)	783	2,947,865	26.83%	6,175,771	56.21%	1,003,685	9.13%	859,998	7.83%	10,987,319
Rocky Mt. (19)	462	1,247,365	19.26%	4,430,188	68.40%	340,077	5.25%	458,976	7.09%	6,476,605
Northwest (20)	576	2,355,370	23.40%	5,800,113	57.63%	1,084,459	10.77%	825,147	8.20%	10,065,088
Sierra Pacific (21)	1005	4,182,234	27.51%	8,083,177	53.17%	1,761,338	11.59%	1,175,821	7.73%	15,202,569
Desert Pacific (22)	961	5,218,644	25.37%	11,936,941	58.02%	2,009,873	9.77%	1,408,238	6.84%	20,573,697
<b>National</b>	<b>19929</b>	<b>88,975,677</b>	<b>26.14%</b>	<b>192,057,474</b>	<b>56.43%</b>	<b>31,568,360</b>	<b>9.28%</b>	<b>27,736,914</b>	<b>8.15%</b>	<b>340,338,426</b>

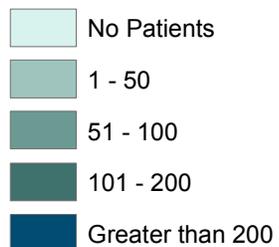
**Table 8.7:  
FY-2000 Cost of Colorectal Cancer (Secondary Diagnosis)**

Veterans Integrated Service Network	No. of Patients	Outpatient		Inpatient Med/Surg		Inpatient Other		Pharmacy		Total
		\$	%	\$	%	\$	%	\$	%	\$
<b>New England (1)</b>	325	747,862	25.08%	1,500,809	50.33%	467,392	15.67%	266,050	8.92%	2,982,112
<b>Upstate NY (2)</b>	419	877,025	36.37%	796,505	33.03%	261,462	10.84%	476,245	19.75%	2,411,237
<b>NY/NJ (3)</b>	583	1,265,139	35.74%	1,199,525	33.88%	473,821	13.38%	601,560	16.99%	3,540,046
<b>Stars and Stripes (4)</b>	476	583,415	24.60%	935,491	39.44%	385,939	16.27%	467,012	19.69%	2,371,857
<b>Capitol (5)</b>	225	586,326	25.22%	1,217,865	52.39%	342,583	14.74%	177,710	7.65%	2,324,484
<b>Mid-Atlantic (6)</b>	353	572,458	20.55%	1,278,877	45.90%	593,218	21.29%	341,775	12.27%	2,786,329
<b>Atlantic (7)</b>	313	602,280	25.90%	1,054,885	45.37%	344,165	14.80%	323,638	13.92%	2,324,969
<b>Sunshine (8)</b>	903	1,598,859	26.33%	2,828,831	46.59%	917,345	15.11%	726,859	11.97%	6,071,895
<b>Mid-South (9)</b>	399	744,185	25.34%	1,400,959	47.71%	351,855	11.98%	439,678	14.97%	2,936,677
<b>Ohio (10)</b>	229	434,383	26.49%	733,317	44.73%	326,242	19.90%	145,610	8.88%	1,639,552
<b>Vets in Partnership (11)</b>	351	876,327	32.96%	944,741	35.53%	523,828	19.70%	313,774	11.80%	2,658,670
<b>Great Lakes (12)</b>	248	552,304	21.90%	1,016,351	40.31%	688,873	27.32%	264,015	10.47%	2,521,544
<b>Upper Midwest (13)</b>	153	361,905	17.20%	1,182,310	56.17%	402,986	19.15%	157,507	7.48%	2,104,708
<b>Central Plains (14)</b>	215	402,187	26.21%	678,658	44.23%	230,501	15.02%	222,885	14.53%	1,534,231
<b>Heartland (15)</b>	433	738,074	28.68%	1,210,748	47.05%	235,013	9.13%	389,292	15.13%	2,573,127
<b>South Central (16)</b>	716	1,341,722	31.47%	1,796,449	42.14%	450,602	10.57%	674,153	15.81%	4,262,925
<b>Heart of Texas (17)</b>	249	504,344	26.99%	792,973	42.44%	299,724	16.04%	271,551	14.53%	1,868,593
<b>Southwest (18)</b>	341	706,571	28.66%	870,597	35.31%	627,693	25.46%	260,672	10.57%	2,465,533
<b>Rocky Mt. (19)</b>	173	247,226	33.84%	313,074	42.85%	43,738	5.99%	126,587	17.33%	730,626
<b>Northwest (20)</b>	279	662,242	33.77%	688,841	35.12%	353,229	18.01%	256,895	13.10%	1,961,207
<b>Sierra Pacific (21)</b>	322	763,601	41.47%	606,152	32.92%	222,145	12.06%	249,594	13.55%	1,841,492
<b>Desert Pacific (22)</b>	229	700,937	30.41%	973,845	42.24%	306,694	13.30%	323,842	14.05%	2,305,318
<b>National</b>	<b>7568</b>	<b>15,869,375</b>	<b>28.23%</b>	<b>24,021,804</b>	<b>42.73%</b>	<b>8,849,049</b>	<b>15.74%</b>	<b>7,476,904</b>	<b>13.30%</b>	<b>56,217,131</b>

Map 8.1



Number of Patients



Number of VA Patients with Colorectal Cancer by County FY-2000

VA Health Care Atlas  
HSR&D SDR 01-175

Source: VA Medical SAS Databases, FY-00

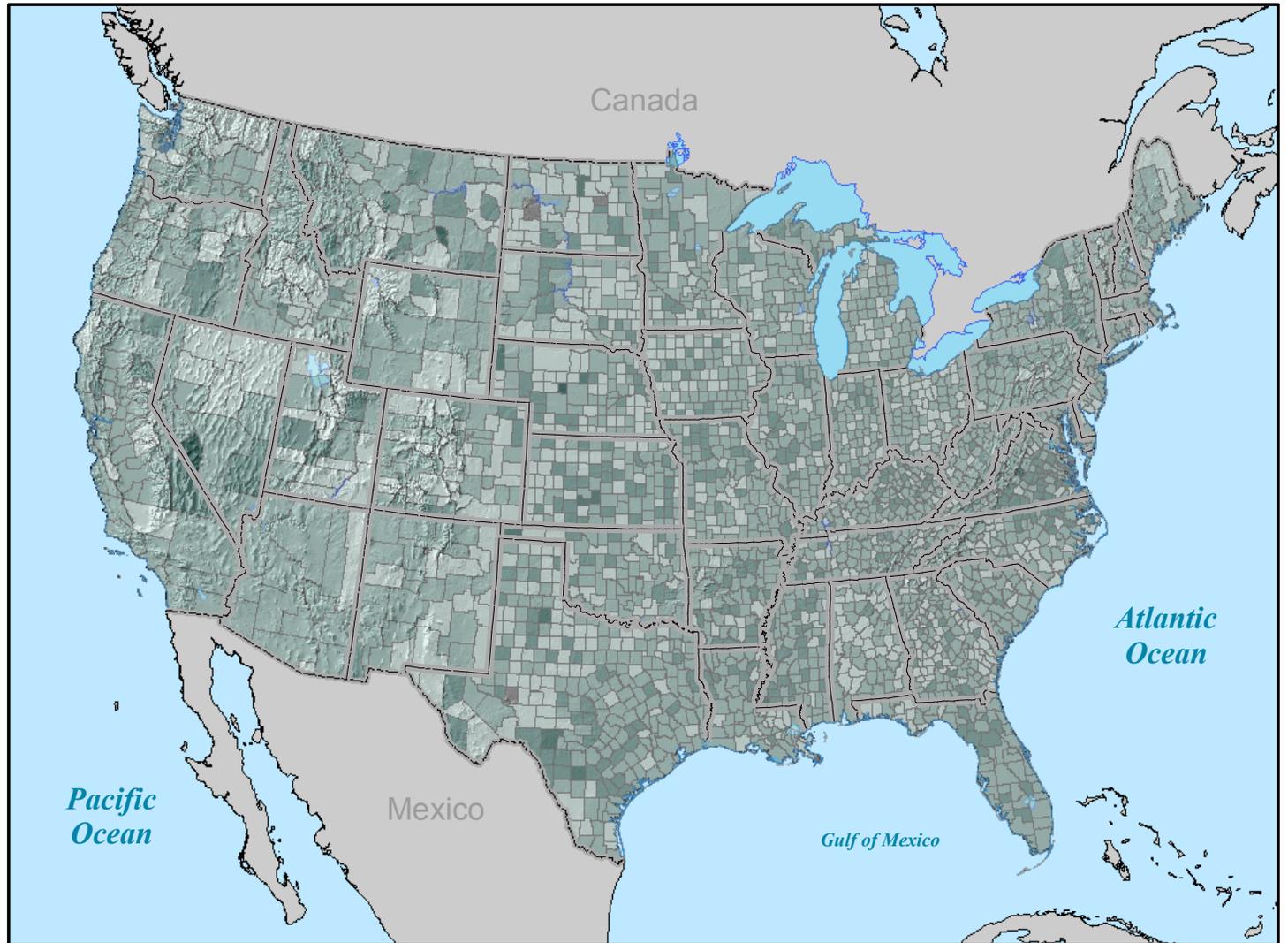
Created in ArcGIS 8 using ArcMap

# Colorectal Cancer

Map 8.2



### Percent of Patients



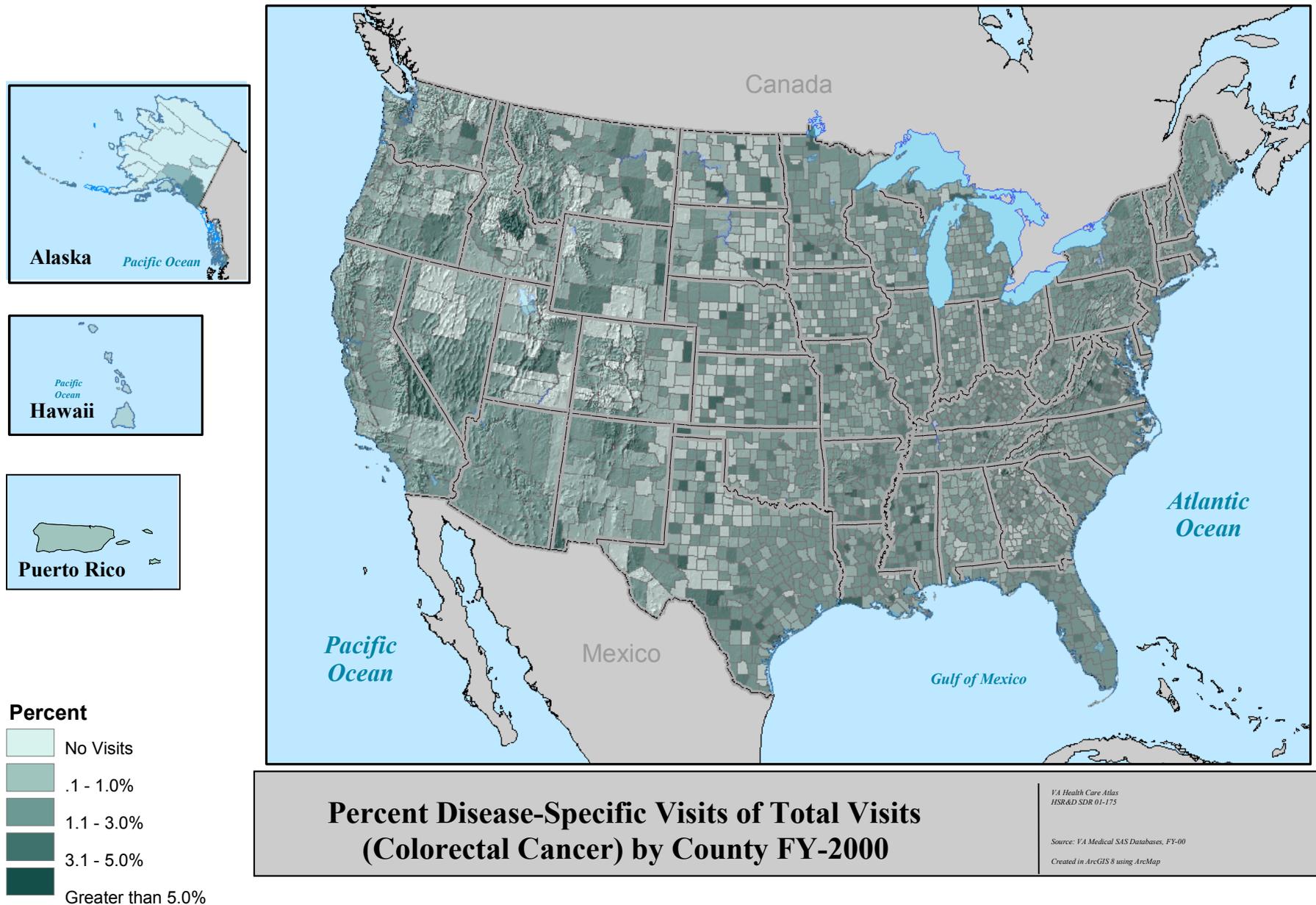
**Percent of VA Patients with Colorectal Cancer  
by County FY-2000**

VA Health Care Atlas  
HSR&D SDR 01-175

Source: VA Medical SAS Databases, FY-00

Created in ArcGIS 8 using ArcMap

Map 8.3

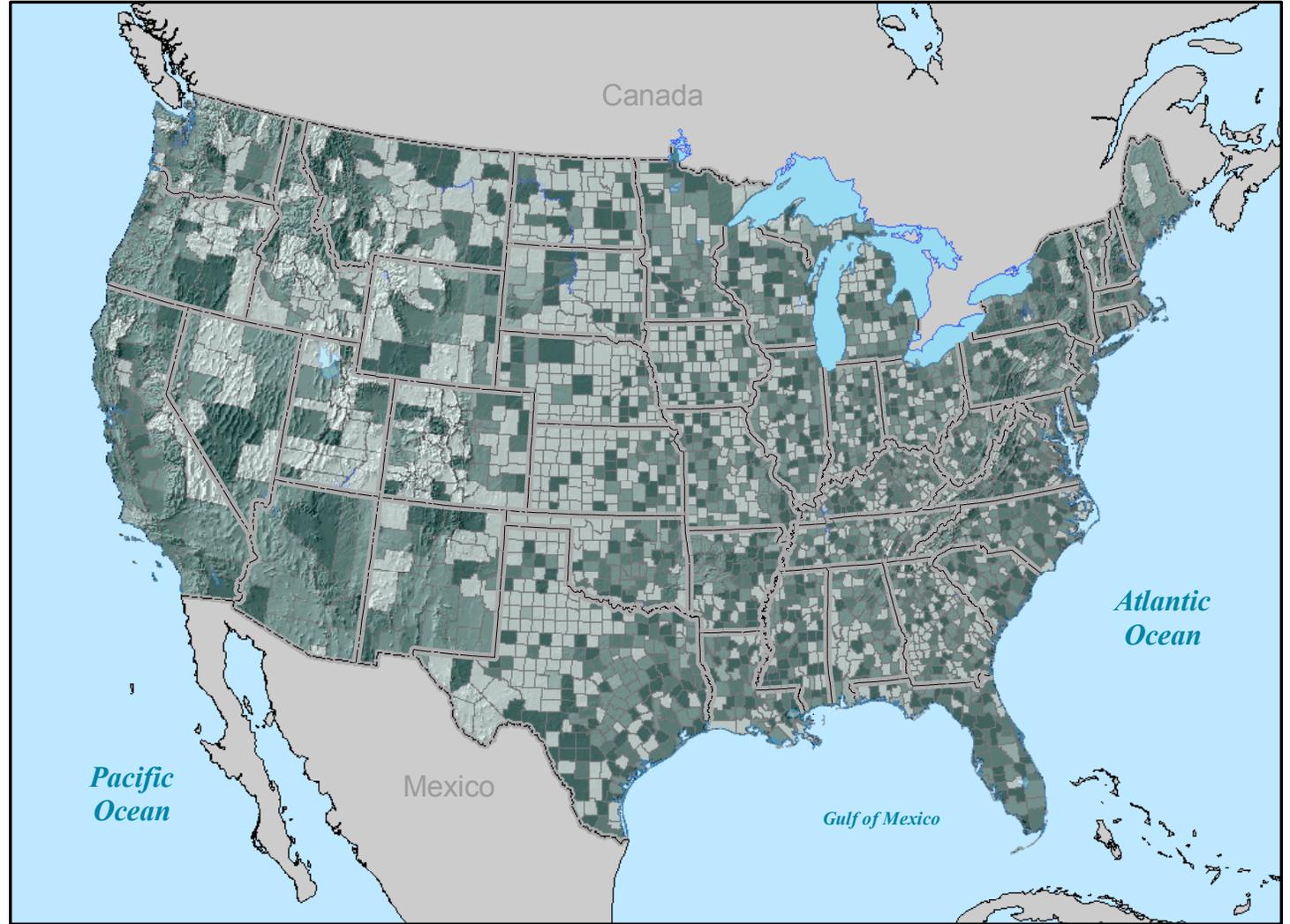
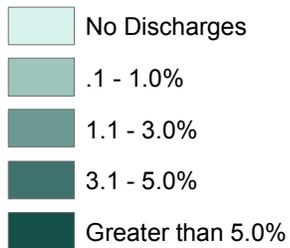


# Colorectal Cancer

Map 8.4



### Percent



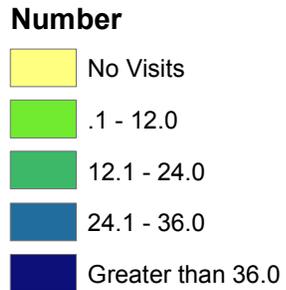
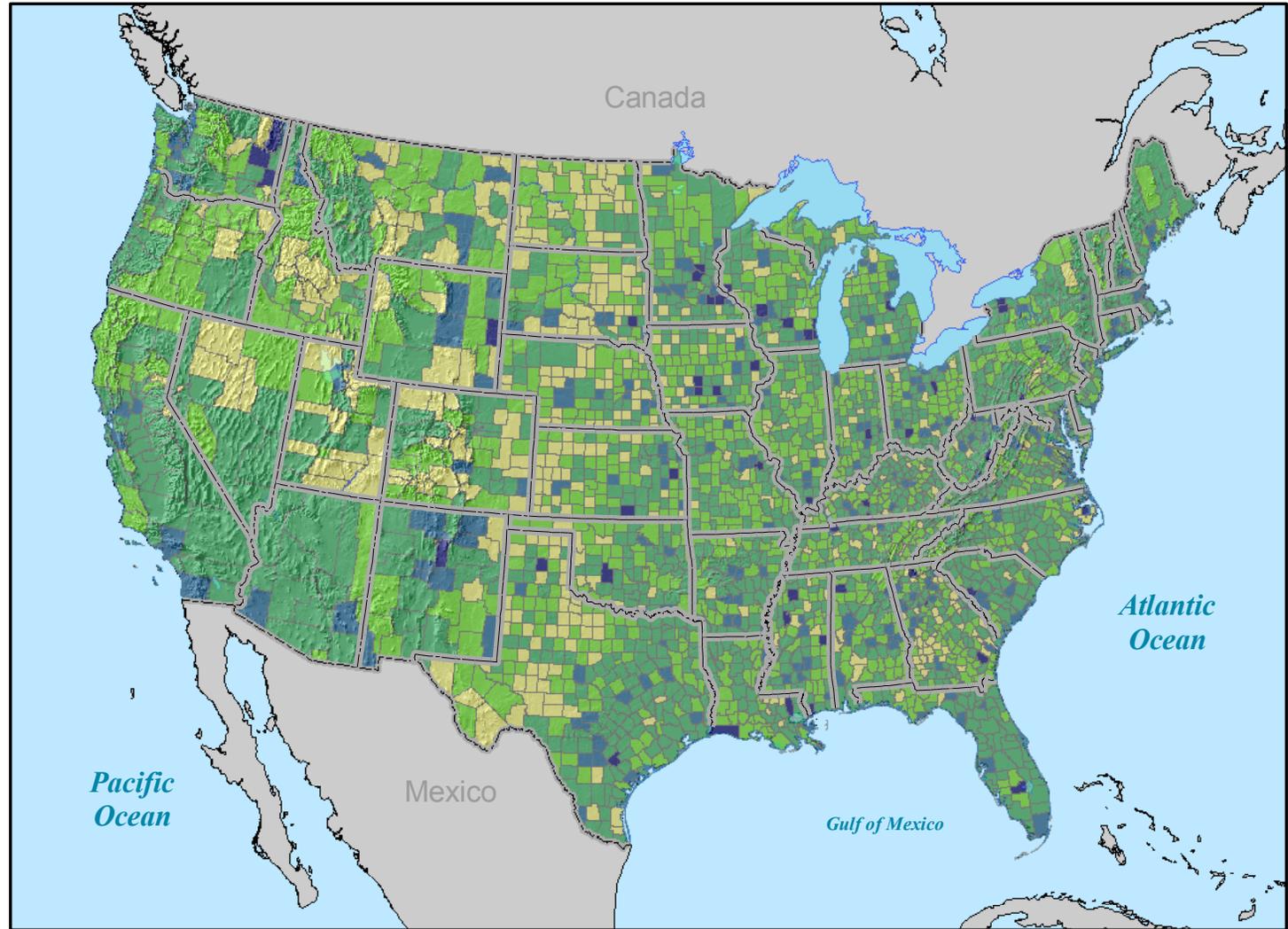
**Percent Disease-Specific Discharges of Total Discharges  
(Colorectal Cancer) by County FY-2000**

VA Health Care Atlas  
HSR&D SDR 01-175

Source: VA Medical SAS Databases, FY-00

Created in ArcGIS 8 using ArcMap

Map 8.5

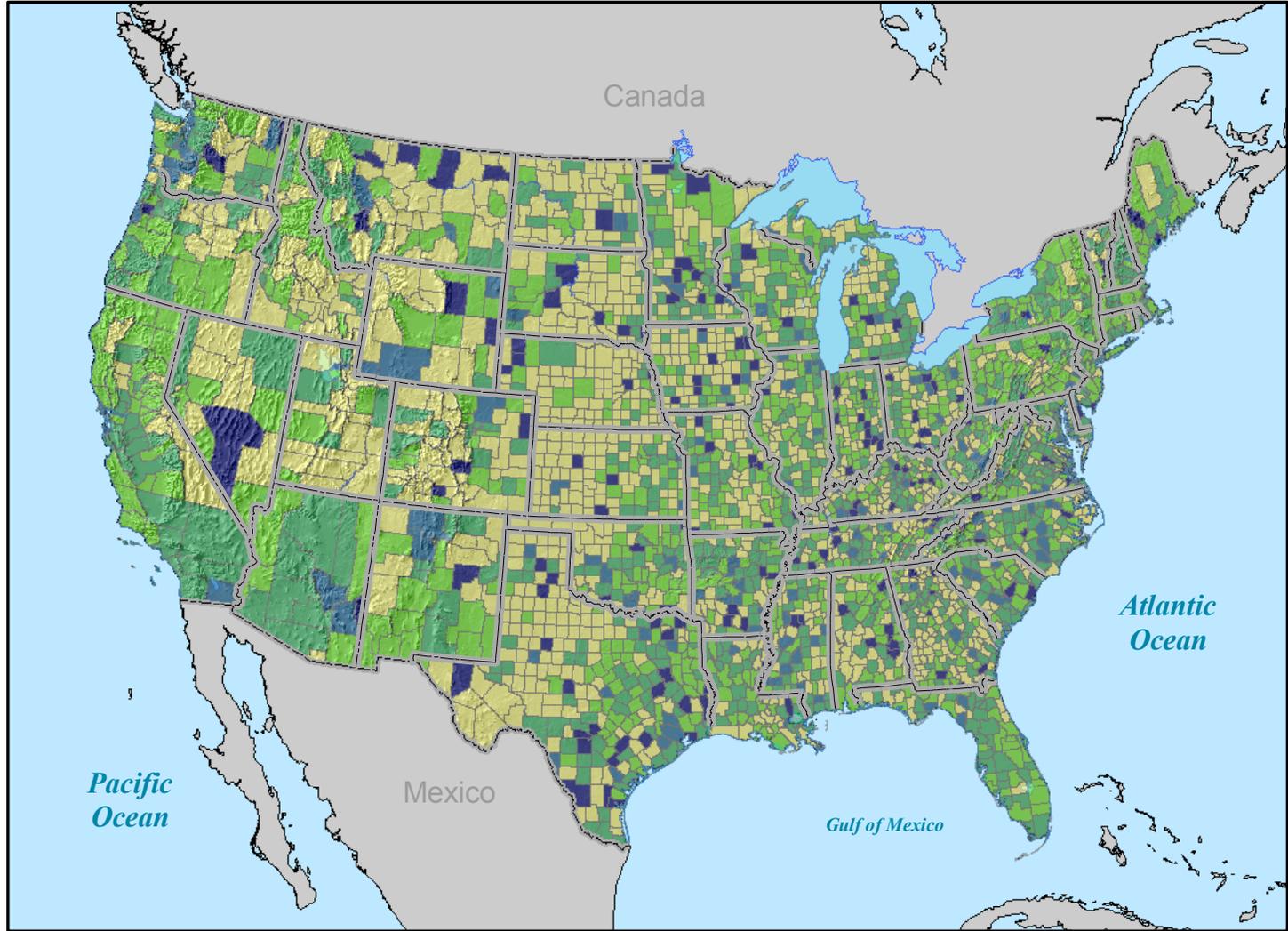


**Average Number of Visits for Patients with Colorectal Cancer by County FY-2000**

VA Health Care Atlas  
HSR&D SDR 01-175  
Source: VA Medical SAS Databases, FY-00  
Created in ArcGIS 8 using ArcMap

# Colorectal Cancer

Map 8.6



### Number per 1,000

- No Discharges
- 1 - 500
- 501 - 1000
- 1001 - 1500
- Greater than 1500

## Disease Specific Discharges per 1,000 Patients with Colorectal Cancer by County FY-2000

VA Health Care Atlas  
HSR&D SDR 01-175

Source: VA Medical SAS Databases, FY-00

Created in ArcGIS 8 using ArcMap

## For More Information

Colorectal cancer (CRC) is both a high volume and high-risk disease. CRC ranks second among causes of cancer deaths, accounts for approximately 11% of all new cancer cases, and is the third most common cancer among men and women. However, the 5-year relative survival rate is over 90% for people whose CRC is found and treated in Stage I, as compared to 5% for people with Stage IV disease. Unfortunately, less than 30% of cases are detected at an early stage. Current CRC screening guidelines recommend that veterans over 50 years old should have a:

- Fecal Occult Blood Test (FOBT) series once a year,
- sigmoidoscopy every 5 years, or
- colonoscopy every 10 years.

The VA Office of Quality and Performance reports that 32% of eligible patients fail to receive timely CRC screening nationally. These estimates highlight a tragic gap between best and current CRC screening and surveillance practices. Efforts to address this gap have enormous potential to prevent suffering, reduce morbidity and cancer-related mortality, improve efficiency of resource use, and substantially improve quality of life for a large number of veterans. The primary mission of the Colorectal Cancer Quality Enhancement Research Initiative (QUERI-CRC) is to reduce incidence, late detection, suffering, and mortality from CRC among all veterans by promoting the translation of research discoveries and innovations into patient care and systems improvements. Success at achieving this mission is defined as creating measurable, rapid, and sustainable improvements in colorectal cancer prevention, early detection, treatment, palliative care, and patient-centered outcomes.

QUERI-CRC is located at the HSR&D Center of Excellence in Minneapolis, Minnesota and is co-chaired by Michelle van Ryn, PhD, MPH, (Research Coordinator) and John Bond, MD (Clinical Coordinator). Researchers or other interested parties are encouraged

to contact the QUERI-CRC Coordinator to learn more about VHA's current research foci and ongoing projects in the area of CRC:

Krysten Halek, MA  
Administrative Coordinator  
CRC Coordinating Center  
VAMC Minneapolis (152/2E)  
One Veterans Drive  
Minneapolis, MN 55417

Telephone: 612/725-2000 x3827  
Fax: 612/727-5699  
E-mail: [krysten.halek@med.va.gov](mailto:krysten.halek@med.va.gov)

A summary of QUERI-CRC activities is provided below. These descriptions were extracted from the Fact Sheets available on the Web site: <http://www.hsrd.research.va.gov/queri.cfm>.

## Research Focus and Translation Activities

Funded in August 2001, the QUERI-CRC is currently focused on foundation-building activities that include: developing a data system for informing, monitoring, and assessing outcomes of screening-promotion translations projects; activities intended to develop a foundation for rapid-cycle organizational change interventions; and the development of functional partnerships with VA researchers, the National Cancer Institute, American Cancer Society, other QUERI groups, and the newly funded NCI CanCORs Steering Committee, among others. QUERI-CRC is also working to develop rapid and responsive dissemination channels such as an evidence-based web site and a semi-annual newsletter, and is conducting pilot activities to inform and promote the development of translation research projects that target organizational, provider, and patient barriers to screening. The first priority of the QUERI-CRC is to develop and begin implementing one or more translation projects that will measure the

impact of promoting best CRC screening and colonoscopic follow-up practices. Our current translation efforts in this area are focused on building the foundation for effective interventions and establishing systems for collaboration and dissemination of information. QUERI-CRC will work to:

- Develop a data system for informing, monitoring, and assessing outcomes of screening promotion translation projects. The basic data elements for this system will come from VA outpatient and lab data, but will be supplemented through additional sponsored projects with Medicare and survey data. Structural, provider, and patient mediators of quality improvement outcomes to be measured include improved patient attitude toward and intention to participate in screening, improved provider recommendation for and follow-up of screening, and improved system capacity for screening and follow-up.
- Develop and begin implementing one or more translation projects geared toward promoting best CRC screening and follow-up practices. The first three years of QUERI-CRC activities are expected to result in a number of products, including:
  - A valid, efficient data system for monitoring variations in CRC screening and quality of CRC treatment and assessing impact of quality improvement efforts;
  - Sustainable and reproducible strategies for increasing CRC screening and reducing late detection;
  - Systematic reviews and reports on best practices for stage-specific CRC treatment;
  - Identification of key components of effective translation frameworks and the organizational conditions that result in successful implementation;
- Culturally sensitive programs targeting patient adherence and provision of culturally appropriate care;
- Technical assistance in reproducing strategies in diverse care settings; and
- Widespread dissemination of information through a web site, bi-annual newsletters, publications, and relevant conferences and meetings.