

Colorectal Cancer Analysis
 Mercy and Unity Cancer Center
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 Presented at the May 24, 2011, Cancer Committee meeting

Incidence/Volumes:

Figure 1A shows colorectal cancer diagnoses at Mercy and Unity over the last 30 years. The growth in volumes exceeds the growth nationally, which has been about 6% since 2001. The growth of our program has been led by the Mercy site since 2001, primarily because of the greater surgical volumes there (Figure 1B).

Figure 1A

1981 TO 2010 Mercy and Unity Colorectal Volume

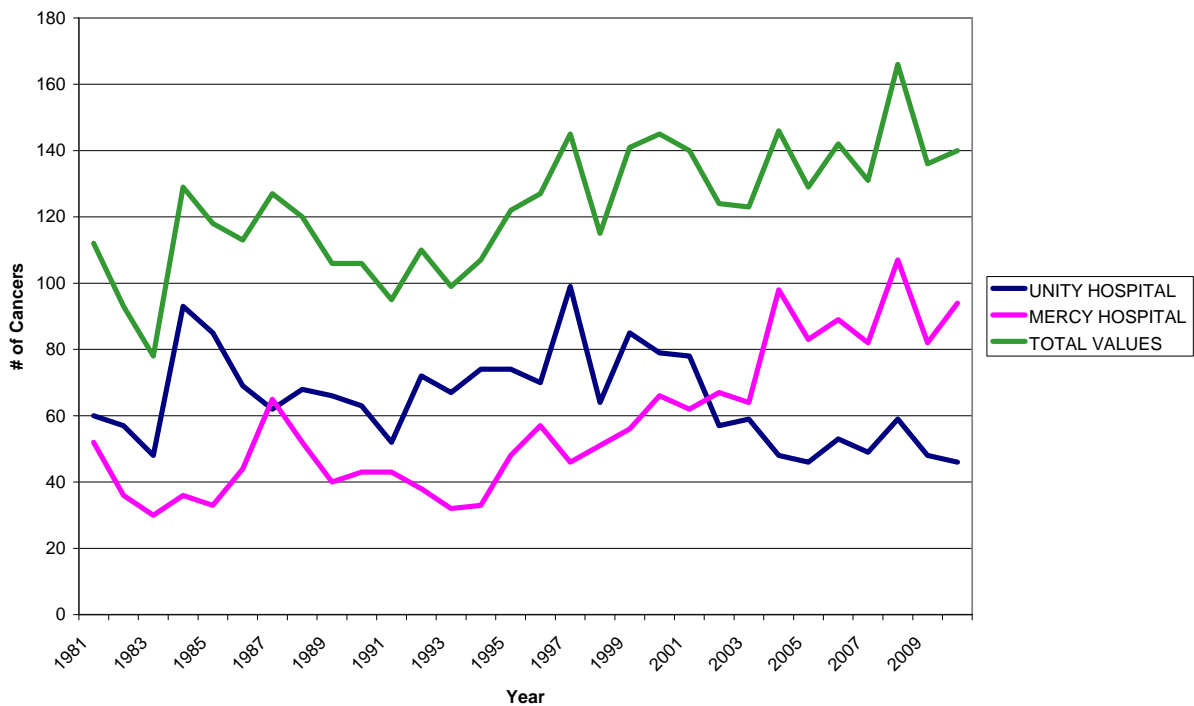
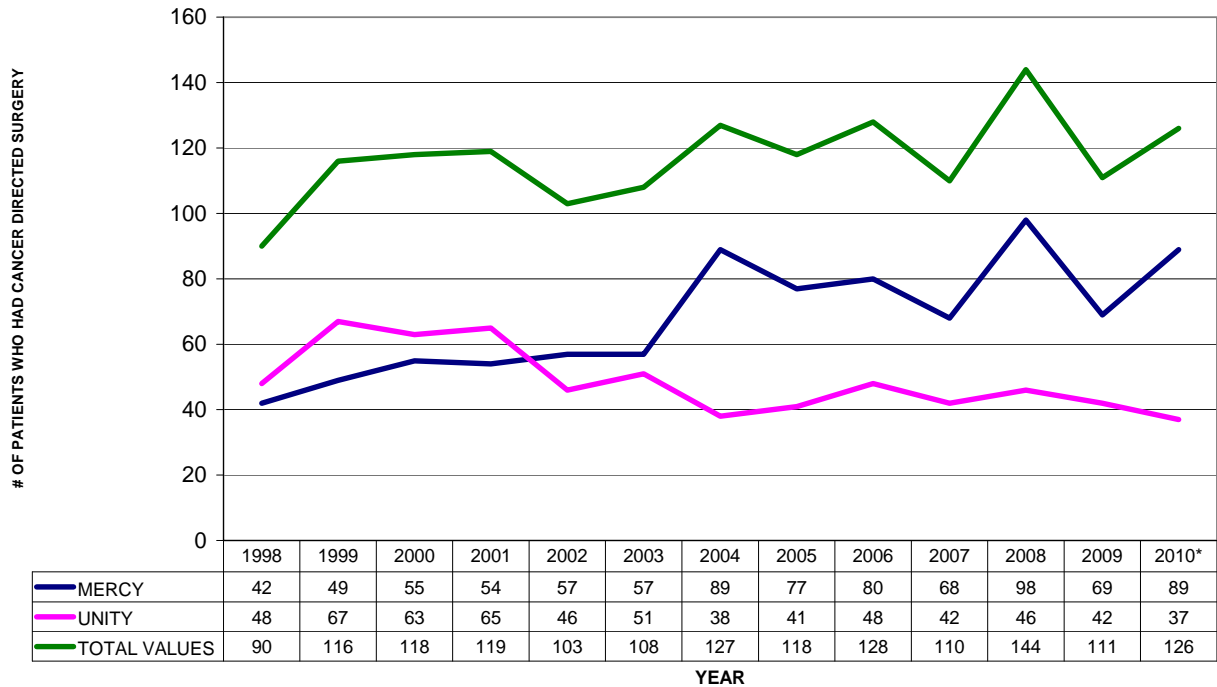


Figure 1B

**1998 TO 2010 SURGICAL VOLUME
COLORECTAL CASES**



*2010 volume is an approximation.

Stage at Diagnosis:

Treatment of colorectal cancer is determined by stage at diagnosis. The majority of cases require surgery because they are diagnosed prior to distant spread. Colonoscopy screening testing allows diagnoses at earlier more curable stages.

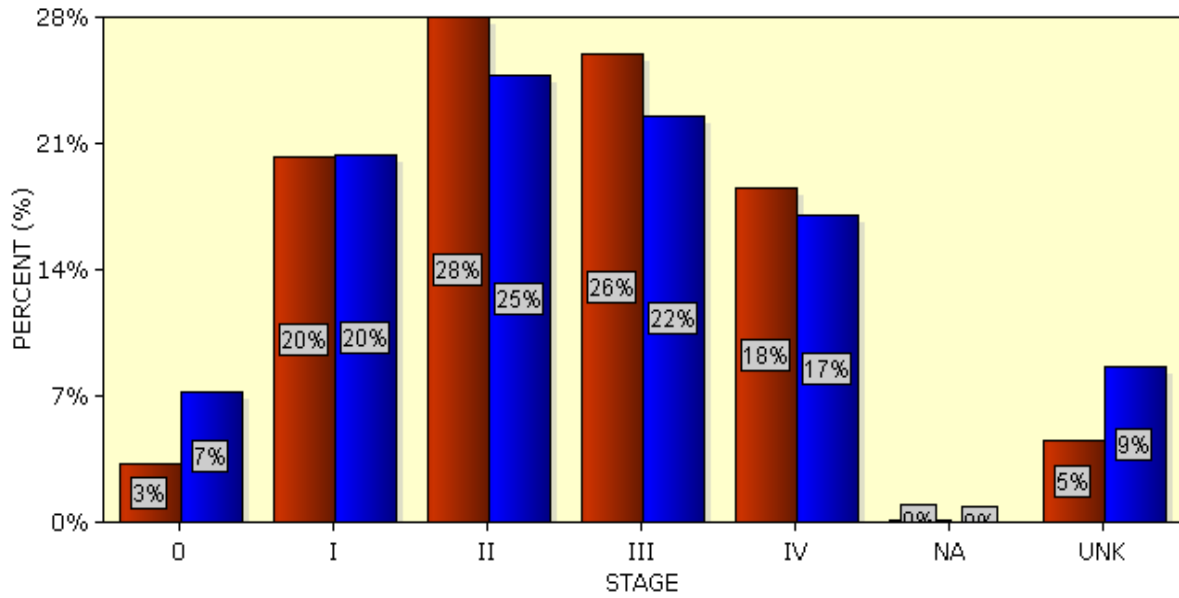
Stage of colorectal cancer refers to distribution of the disease in the body:

- Stage I - Localized within the bowel wall
- Stage II - Localized with penetration of the bowel wall
- Stage III - Involvement of regional lymph nodes
- Stage IV - Distant spread

The 7th edition of AJCC staging guidelines has expanded subcategories within each of these basic groups. The stage distribution for colon and rectal cancer diagnoses in our program is similar to national results. There is a greater percentage of Stage III diagnoses in our program than nationally. However, there were significantly more unknown stages nationally. (See Figures 2A and B)

Figure 2A

Stage of Colon Cancer Diagnosed in 2000 to 2008
 Unity Hospital, Fridley MN
 vs. All Types Hospitals in All States
 All Diagnosed Cases



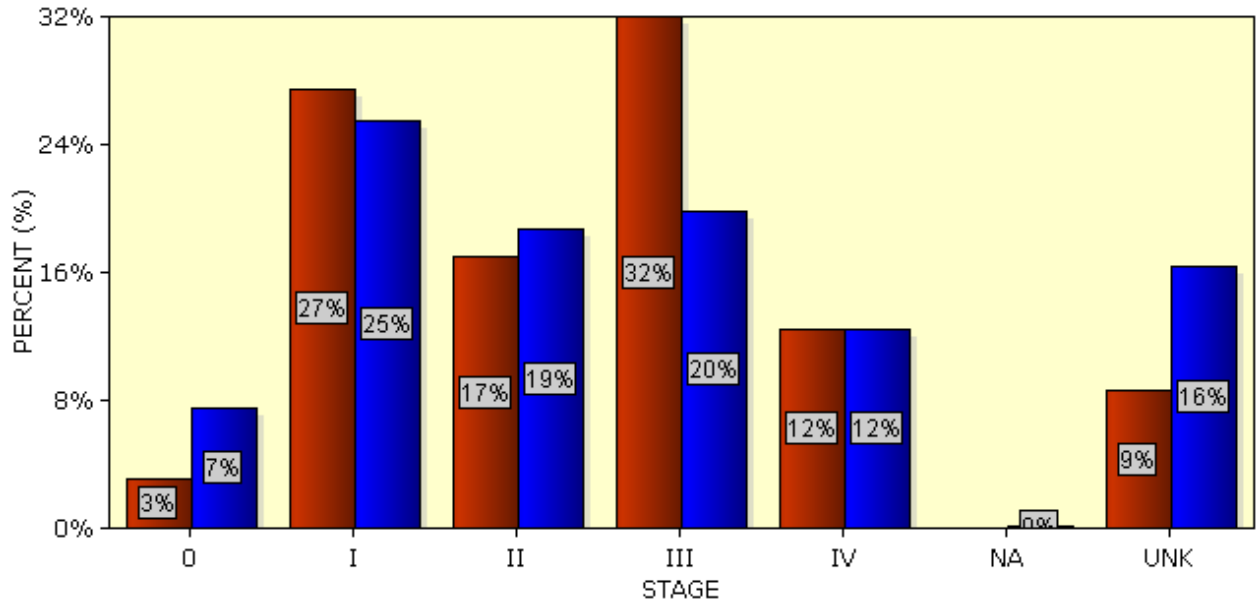
Stage of Colon Cancer Diagnosed in 2000 to 2008

Unity Hospital, Fridley MN
vs. All Types Hospitals in All States
All Diagnosed Cases

#	Stage	My (N)	Oth. (N)	My (%)	Oth. (%)
1.	0	28	50584	3.25%	7.17%
2.	I	173	142783	20.09%	20.24%
3.	II	239	173336	27.76%	24.57%
4.	III	222	157599	25.78%	22.34%
5.	IV	159	119594	18.47%	16.95%
6.	NA	1	720	0.12%	0.1%
7.	UNK	39	60810	4.53%	8.62%
	Col. TOTAL	861	705426	100%	100%

Figure 2B

Stage of Rectum Cancer Diagnosed in 2000 to 2008
Unity Hospital, Fridley MN
vs. All Types Hospitals in All States
All Diagnosed Cases



<i>Stage of Rectum Cancer Diagnosed in 2000 to 2008</i>					
Unity Hospital, Fridley MN					
vs. All Types Hospitals in All States					
All Diagnosed Cases					
#	Stage	My (N)	Oth. (N)	My (%)	Oth. (%)
1.	0	9	15701	3.1%	7.46%
2.	I	79	53281	27.24%	25.33%
3.	II	49	39122	16.9%	18.6%
4.	III	92	41553	31.72%	19.75%
5.	IV	36	26105	12.41%	12.41%
6.	NA	.	471	.	0.22%
7.	UNK	25	34137	8.62%	16.23%
Col. TOTAL		290	210370	100%	100%

Treatment and Outcomes:

In a broad way, colorectal cancer treatment is standardized nationally. Guidelines from groups like the National Comprehensive Cancer Network (NCCN) reflect the latest consensus from recent clinical trials. Physicians in our cancer program follow these guidelines.

Treatment of Stage I, II, and III cancers involve surgical resection of the primary tumor. Stage II and III rectal cancers are usually given radiation therapy plus chemotherapy prior to surgery. Stage III and some Stage II colorectal cancers should receive adjuvant (post-operative) chemotherapy. Stage IV cancers are treated with systemic chemo- and/or biological therapy.

Five-year survivals from colon and rectal cancer are summarized in Figures 3A and B for each stage at diagnosis and overall. For each stage, results from our Mercy and Unity Cancer Program are compared with national data. In general the results of our outcomes are similar to the national picture. The Mercy and Unity program has superior survivals in Stage IV disease. The results in Stage II rectal cancer are better nationally. Areas of unfavorable comparison with national results will undergo chart review.

Figure 3A

**COLON CANCER OBSERVED SURVIVAL
2002 TO 2006 MERCY AND UNITY
VS. 2003 NCDB (Data from 1316 Facilities Nationwide)**

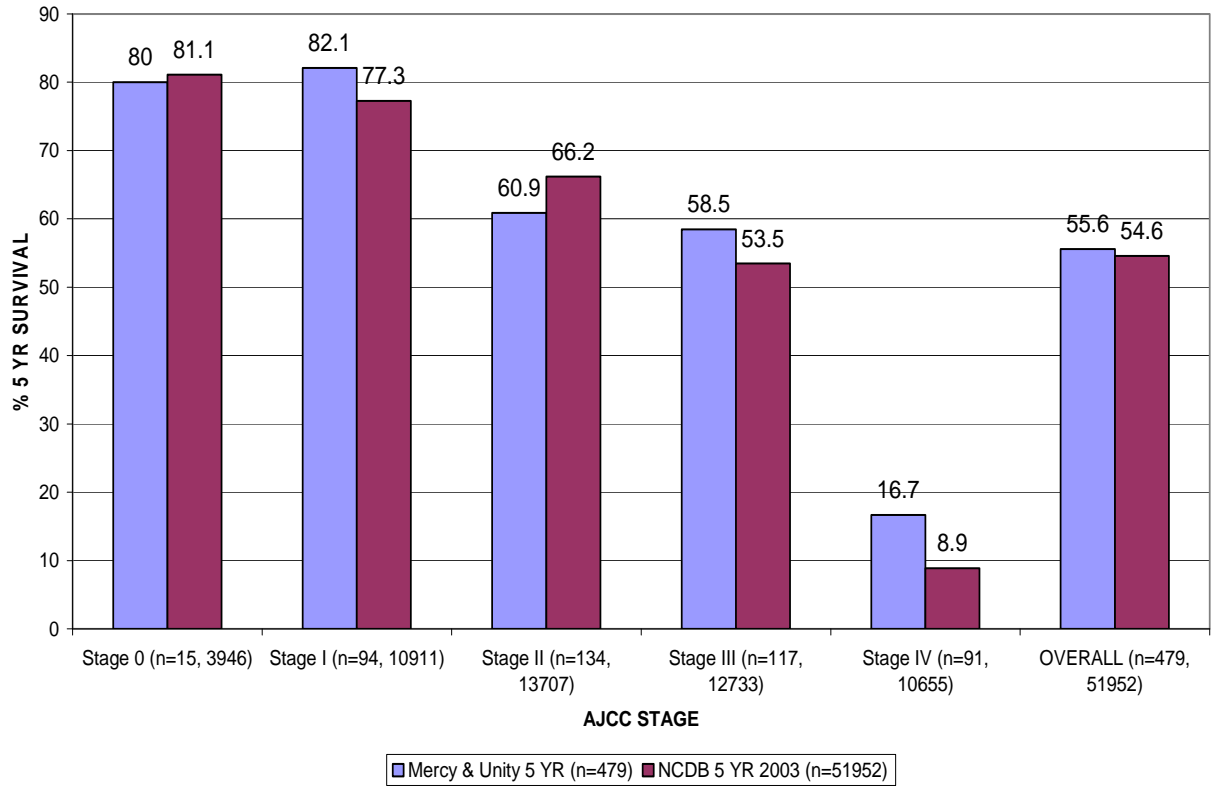
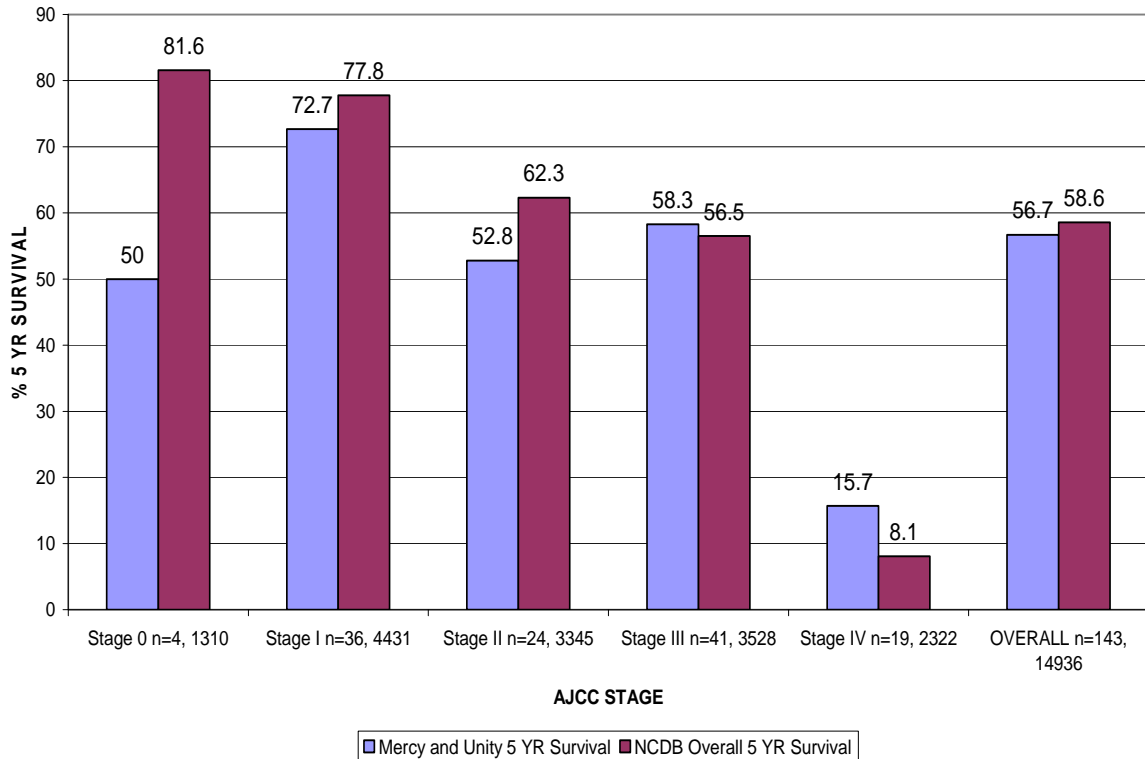


Figure
3B

**RECTAL CANCER OBSERVED SURVIVAL
2002 TO 2006 MERCY AND UNITY
VS. 2003 NCDB (Data from 1316 Facilities Nationwide)**






Quality Measures:

The Commission on Cancer has been tracking three quality measures relating to colorectal cancer care:

1. Adjuvant chemotherapy given for Stage III (node positive) colon cancer.
2. At least 12 regional nodes removed and examined for colon cancer resection.
3. Radiation therapy given in conjunction with surgery for Stage III or T4 rectal cancer.

The Mercy and Unity Cancer Program compares favorably in all of these quality measures with other cancer programs regionally and nationally. From 2004 to 2008, we have shown significant improvement in completeness of operative lymph node removal and analysis (See Figure 4).

Figure 4
Cancer Program Practice Profile Reports (CP³R):
Colon and Rectal Cancers
 2004 - 2008 Diagnoses

		2004	2005	2006	2007	2008	
C O L O N	Adjuvant chemotherapy is considered or administered within 4 months (120 days) of diagnosis for patients under the age of 80 with AJCC Stage III (lymph node positive) colon cancer. [ACT]	<u>100%</u>	<u>100%</u>	<u>100%</u>	<u>95%</u>	<u>100%</u>	
	At least 12 regional lymph nodes are removed and pathologically examined for resected colon cancer. [12RLN]	<u>78.1%</u>	<u>84.8%</u>	<u>85.2%</u>	<u>90%</u>	<u>90.9%</u>	
R E C	Radiation therapy is considered or administered within 6 months (180 days) of diagnosis for patients under the age of 80 of with clinical or pathologic AJCC T4N0M0 or Stage III receiving surgical resection for rectal cancer. [AdjRT]	<u>100%</u>	<u>87.5%</u>	<u>92.3%</u>	<u>100%</u>	<u>94.1%</u>	

Adjuvant chemotherapy is considered or administered within 4 months (120 days) of diagnosis for patients under the age of 80 with AJCC Stage III (lymph node positive) colon cancer. [ACT]	Diagnosis Year: 2008 (Last Update: May 12, 2011)				
	Perf. Rate	95% CI	Cases	#Prog.	
	My Cancer Program	100 %	(100 - 100)	12	
	My State (MN)	86 %	(81.4 - 90.6)	215	21
	My ACS Division (Mid-West)	90.7 %	(88.1 - 93.3)	495	74
	My Census Region (Midwest)	86.9 %	(84.6 - 89.2)	845	104
	My CoC Program Type (COMP)	85.9 %	(85 - 86.8)	5592	573
	All CoC Approved Programs (ALL)	84.8 %	(84.1 - 85.5)	10642	1393
At least 12 regional lymph nodes are removed and pathologically examined for resected colon cancer. [12RLN]	Diagnosis Year: 2008 (Last Update: May 12, 2011)				
	Perf. Rate	95% CI	Cases	#Prog.	
	My Cancer Program	90.9 %	(83.3 - 98.5)	55	
My State (MN)	84.2 %	(81.5 - 86.9)	726	21	

My ACS Division (Mid-West)	86.4 %	(84.9 - 87.9)	1901	74
My Census Region (Midwest)	84.1 %	(82.8 - 85.4)	3002	104
My CoC Program Type (COMP)	82.6 %	(82.1 - 83.1)	19593	573
All CoC Approved Programs (ALL)	82.1 %	(81.7 - 82.5)	36182	1393
Radiation therapy is considered or administered within 6 months (180 days) of diagnosis for patients under the age of 80 with clinical or pathologic AJCC T4N0M0 or Stage III receiving surgical resection for rectal cancer. [Rec/RT]	Diagnosis Year: 2008 (Last Update: May 12, 2011)			
	Perf. Rate	95% CI	Cases	#Prog.
My Cancer Program	94.1 %	(82.9 - 105.3)	17	
My State (MN)	87.7 %	(82.2 - 93.2)	138	21
My ACS Division (Mid-West)	89.8 %	(86.2 - 93.4)	275	74
My Census Region (Midwest)	89.1 %	(86.1 - 92.1)	413	104
My CoC Program Type (COMP)	87.4 %	(86 - 88.8)	2067	572
All CoC Approved Programs (ALL)	87.8 %	(86.8 - 88.8)	4219	1384