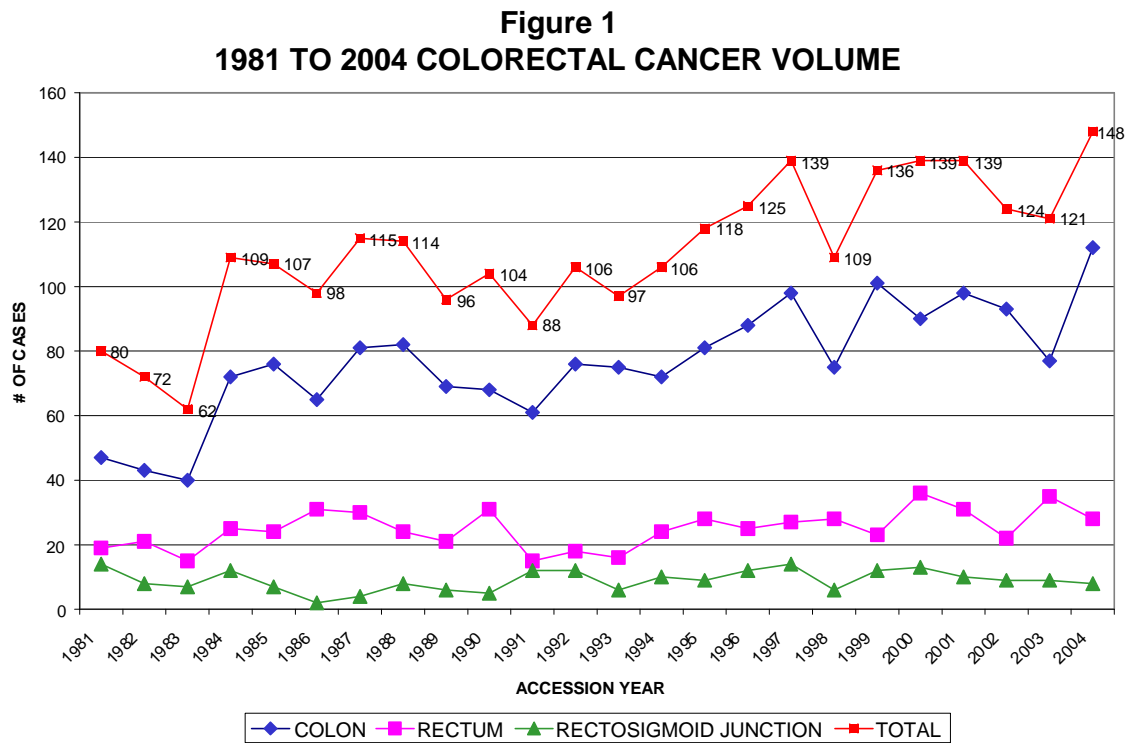


Colorectal Cancer Analysis Mercy and Unity Cancer Center

By Stephen Mann, MD, Medical Directory of Oncology

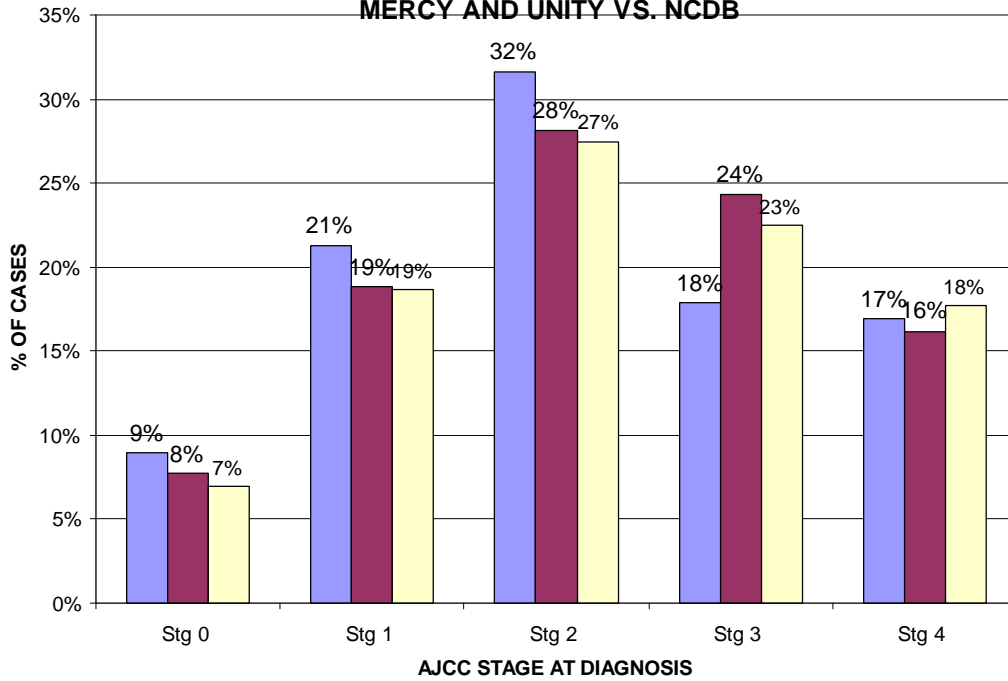
Diagnosis:

Colorectal cancer cases diagnosed and treat at the Mercy and Unity Cancer Center have almost doubled over the last 25 years (Figure 1). This increase has resulted primarily from increased utilization of our center from patients in our service area. The national increase in colorectal cancers over this period is about 20%.



Figures 2A and 2B show the AJCC stage distribution at diagnosis for colon and rectal cancers at Mercy and Unity compared with national data. The Mercy and Unity data is for two different 5-year periods (1993-1997 and 1996-2000), whereas national data comes from the National Cancer Data Base (NCDB) for 1995-96. The stage distributions for colon cancer are similar across all of these populations. In the parallel data for rectal cancer, there is a trend toward earlier stage (1 and 2) at diagnosis nationally compared to the Mercy and Unity results.

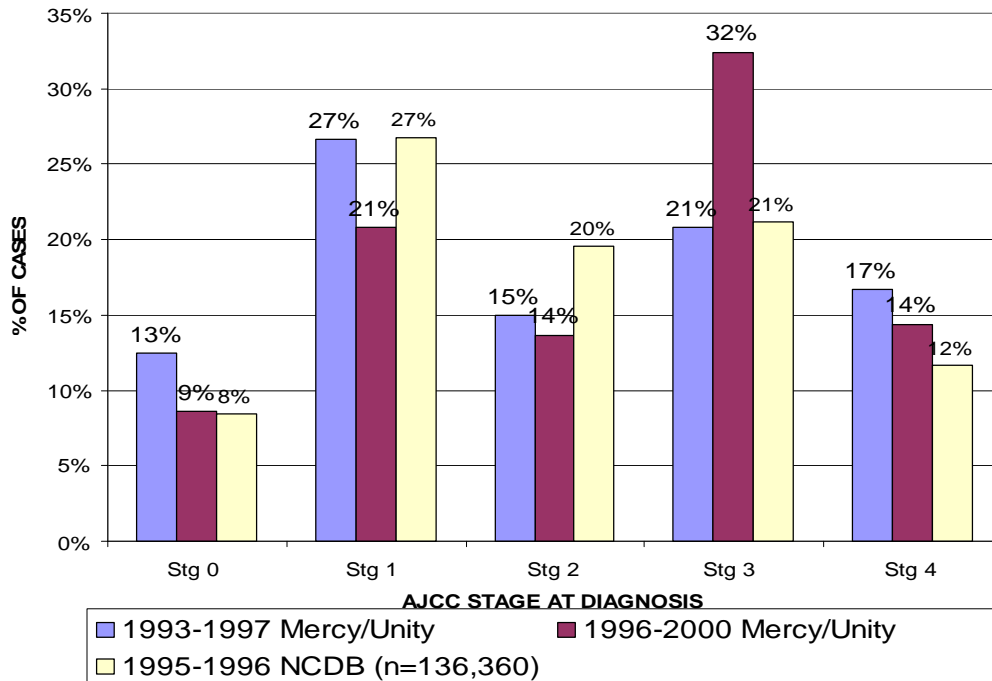
**Figure 2A
COLON CANCER
AJCC STAGE DISTRIBUTION PERCENTAGE
MERCY AND UNITY VS. NCDB**



■ 1993-1997 Mercy/Unity
 ■ 1996-2000 Mercy/Unity
 ■ 1995-1996 NCDB (n=136,360)

N-Values	Stg 0	Stg 1	Stg 2	Stg 3	Stg 4	Overall
1993-1997						
Mercy/Unity	37	88	131	74	70	414
1996-2000						
Mercy/Unity	35	85	127	110	73	452
1995-96 NCDB	9477	25461	37396	30690	24161	136360

Figure 2B
RECTAL CANCER
AJCC STAGE DISTRIBUTION PERCENTAGE
MERCY AND UNITY VS. NCDB



N-Values	Stg 0	Stg 1	Stg 2	Stg 3	Stg 4	Overall
1993-1997 Mercy/Unity	15	32	18	25	20	120
1996-2000 Mercy/Unity	12	29	19	45	20	139
1995-96 NCDB	1360	4317	3161	3425	1888	16168

Screening for colorectal cancer is very effective for early diagnosis and prevention. Unfortunately, fewer than 50% of the public make use of the recommended screening procedures. If most people were screened appropriately, colorectal cancers would be predominantly stage 0, 1, and 2 at diagnosis and highly curable. Such compliance could save up to 20,000 lives annually in the USA.

Treatment:

The recommended treatment for stage 3 (node positive, resectable) colon cancer is adjuvant chemotherapy after surgery. Through our tumor registry, a Commission on Cancer special study was performed examining current use of adjuvant chemotherapy for stage 3 patients (Figure 3). At Mercy and Unity, 92% of these patients received chemotherapy compared with 65-68% for overall statewide and national programs. These results at Mercy and Unity indicate excellent compliance by our oncologists with national standards for treatment and high quality data collection processes by our cancer registrars.

Figure 3 Ranking Table

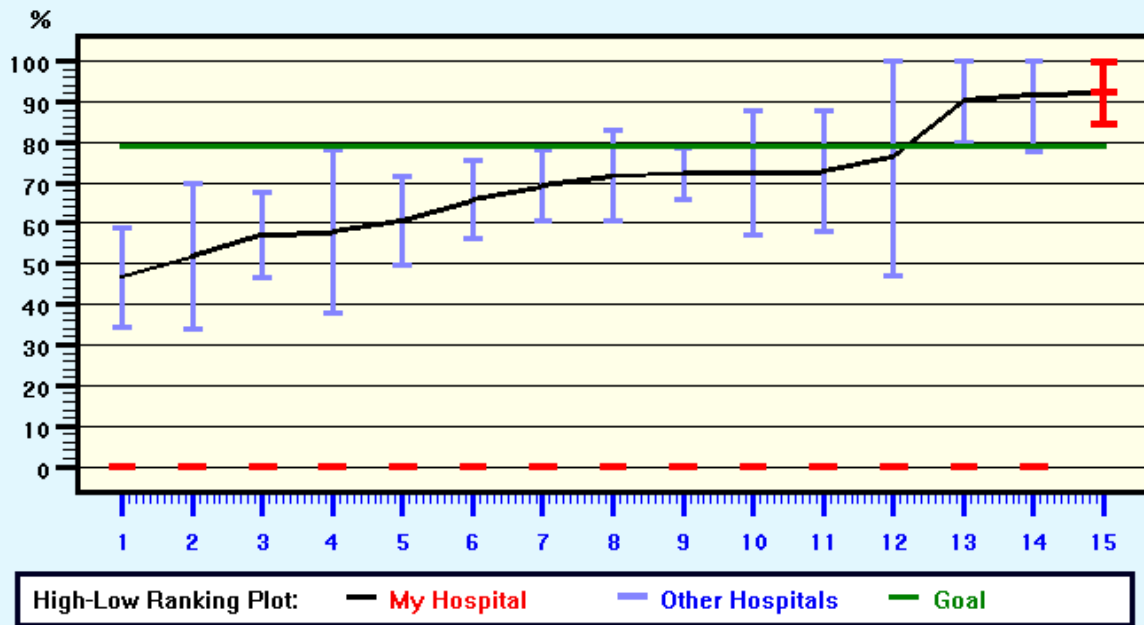
Stage III Colon Cancers by First Course Therapy
Mercy And Unity Hospitals, Fridley, MN - 6610061

COMPARISON GROUP	HOSPITALS IN GROUP	QUARTILE RANK			ORDINAL RANK		
		Surgery & ACT	Surgery Alone	Other Specified Rx	Surgery & ACT	Surgery Alone	Other Specified Rx
US	1376	1	4	3	79	1248	895
Category	521	1	4	3	12	491	377
State	15	1	4	3	1	15	12
ACS Division	61	1	4	3	6	56	39

NCDB, CoC, ACoS. / Colon Cancer Reports v1.0 / May 16, 2005

Surgery & ACT Treatment Ranking at State Level

Weighted Average of Stage III Colon Cancers Receiving Surgery & ACT
Mercy And Unity Hospitals, Fridley, MN - 6610061

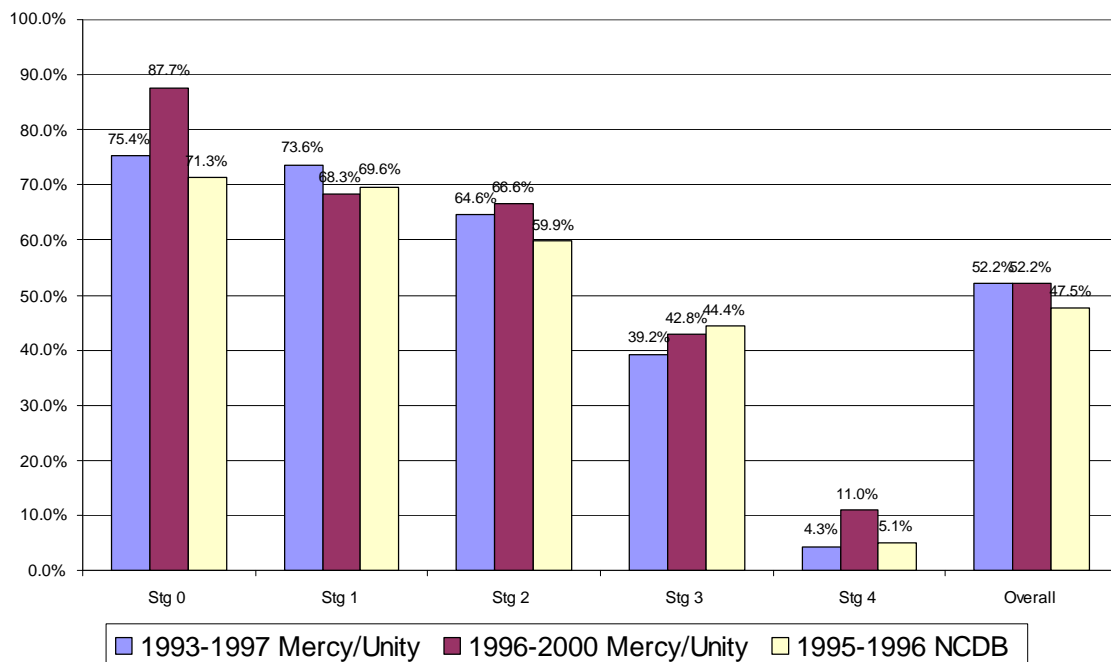


NCDB, CoC, ACoS. / Colon Cancer Reports v1.0 / May 16, 2005

Outcomes:

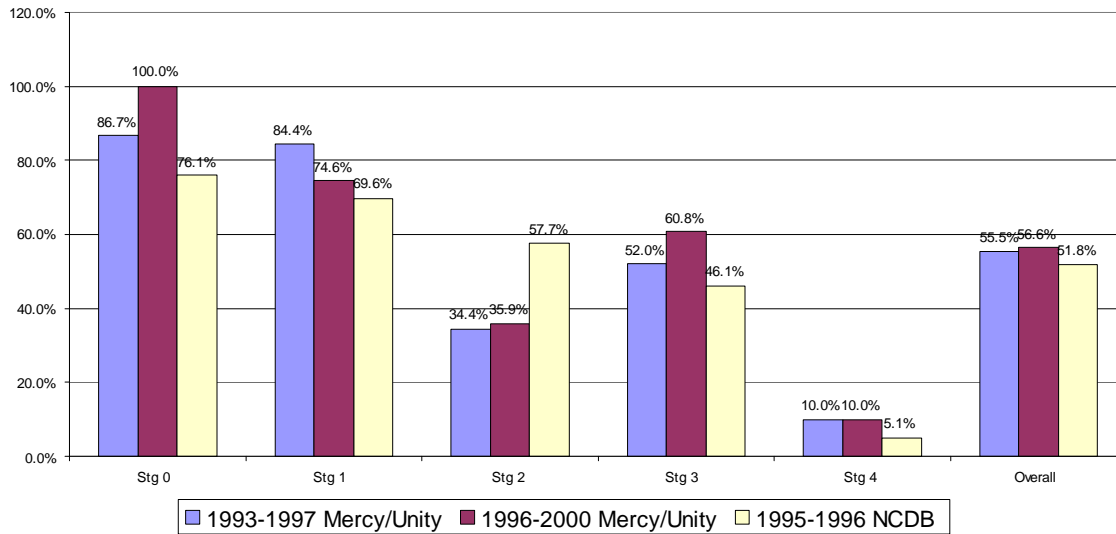
Figures 4A and 4B show 5-year observed patient survivals by stage for colon and rectal cancers. The Mercy and Unity and NCDB data cover the same years that are reviewed with the staging data. The overall survivals at Mercy and Unity compare favorably with the national results. The survivals by stage are also similar among all the patient populations with the exception of stage 2 rectal cancer where the survival is relatively poor at Mercy and Unity and even significantly worse than results for our stage 3 groups. This stage 2 rectal cancer population has been reviewed. The average patient age of 68 was shared by the national cohort. Review of treatment of the Mercy and Unity patients revealed that about 60% received adjuvant or neoadjuvant chemoradiation. We feel that this percentage is low, and we will begin urging treating physicians to use chemoradiation in conjunction with surgery for all stage 2 rectal cancers. It should be noted that the low numbers of stage 2 rectal cancers reviewed at Mercy and Unity (18 and 19 respectively) increase the possibility of aberrant results due to chance alone.

Figure 4A
Mercy and Unity vs. NCDB Colon Cancers
5-Year Observed Survival



	Stg 0	Stg 1	Stg 2	Stg 3	Stg 4	Overall
1993-1997 Mercy/Unity	75.41% (n=37)	73.55% (n=88)	64.55% (n=131)	39.19% (n=74)	4.29% (n=70)	52.22% (n=414)
1996-2000 Mercy/Unity	87.65% (n=35)	68.32% (n=85)	66.57% (n=127)	42.82% (n=110)	10.96% (n=73)	52.22% (n=452)
1995-1996 NCDB	71.32% (n=9477)	69.57% (n=25,461)	59.92% (n=37,396)	44.43% (n=30,690)	5.05% (n=24,161)	47.53% (n=136,360)

Figure 4B
Mercy and Unity vs. NCDB Rectal Cancers
5-Year Observed Survival



	Stg 0	Stg 1	Stg 2	Stg 3	Stg 4	Overall
1993-1997 Mercy/Unity	86.67% (n=15)	84.38% (n=32)	34.39% (n=18)	52% (n=25)	10% (n=20)	55.48% (n=120)
1996-2000 Mercy/Unity	100% (n=12)	74.58% (n=29)	35.92% (n=19)	60.84% (n=45)	10% (n=20)	56.55% (n=139)
1995-1996 NCDB	76.11% (n=1360)	69.61% (n=4317)	57.7% (n=3161)	46.13% (n=3425)	5.09% (n=1888)	51.77% (n=16,168)

Further directions:

The greatest impact on colorectal cancer mortality can be achieved by improved public participation in proven screening techniques. To this end, our cancer center is working with the American Cancer Society (ACS) in our service area. Proposed actions to improve screening include:

- Use tools provided by the ACS to educate patients and primary care physicians about national colorectal cancer screening recommendations.
- Partner with clinics and state and local government programs that will provide screening tests for the poor and underinsured.
- Encourage state government to require private insurers to cover recommended screening tests, including colonoscopy.