

Cancer Program

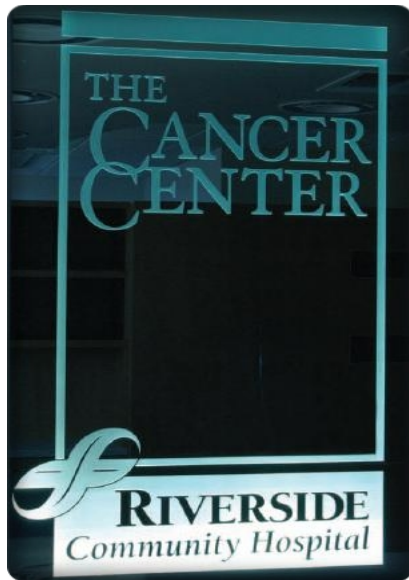
2010 Annual Report

Featuring 2009 Cancer Registry Case Data



 **RIVERSIDE**
Community Hospital

2009 Overview



Riverside Community Hospital (RCH) is pleased to be able to share with you on-line our 2009 Annual Report. This year's report provides an overview of new cancer cases seen at our facility and also features Colon Cancer, which is the third most common site in men and women in the United States today. RCH is committed to our community and the patients that travel to the facility from within and outlying areas seeking cancer services.

In 2009, RCH was pleased to announce that they were the recipient of the American College of Surgeons (ACoS), Commission on Cancer (CoC) - Outstanding Achievement Award (OAA). In December of 2008, RCH was surveyed as a new brand new cancer program to the CoC and received a full three year accreditation with no deficiencies, as well as, the prestigious OAA award.

New services, equipment and community support remain the focus of being able to provide high caliber cancer care services to our patients treated at RCH. Some highlights in 2009 included participation in the ACS Relay for Life and National Cancer Survivor's Day with a "Night at the Improve" where 160 cancer survivors attended. A Prostate Cancer Awareness speaking event was held on September 10, 2009 and the new "da Vinci Robotic Assisted Laparoscopic Prostatectomy" equipment was introduced as a way to perform minimally invasive prostate cancer surgery. At RCH's Breast Imaging Center, they are dedicated to helping women detect early signs of breast cancer in fighting and preventing the disease.

RCH remains committed and proud to be able to provide our patients with the best, state-of-the art technology and helping those we serve with the best possible cancer care available.

*H. Jhangiani, MD, Medical Oncology
Cancer Committee Chairman*

2009 Primary Site Table

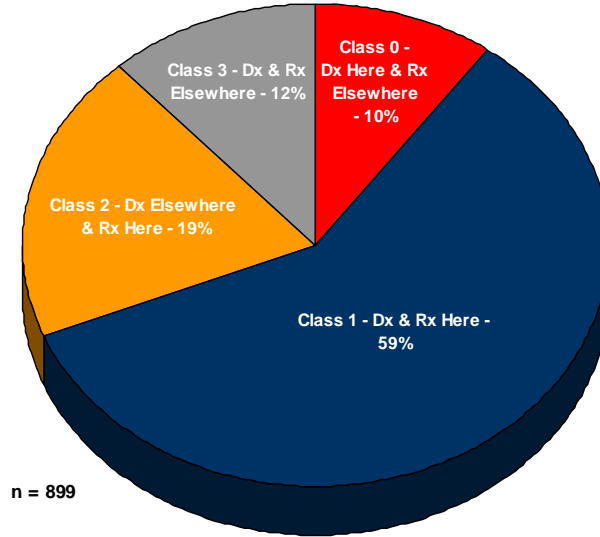
Riverside Community Hospital
2009 Primary Site Table

Site Group	Total Cases	Class of Case		Sex		AJCC TNM Collaborative Stage						
		Analytic	Non-Ana	M	F	Stage 0	Stage I	Stage II	Stage III	Stage IV	N/A	Unk
ALL SITES	899	794	105	403	496	58	169	163	105	138	88	73
HEAD & NECK	21	18	3	14	7	0	4	2	3	6	1	2
DIGESTIVE SYSTEM	156	139	17	74	82	4	26	21	27	31	6	24
ESOPHAGUS	8	5	3	7	1	1	2	0	0	2	0	0
STOMACH	21	18	3	14	7	0	1	0	3	8	0	6
SMALL INTESTINE	4	4	0	2	2	0	0	0	0	0	4	0
COLON/RECTUM	80	76	4	32	48	3	21	15	22	9	0	6
ANUS, ANORECTUM	5	4	1	1	4	0	0	1	0	1	0	2
LIVER	13	10	3	9	4	0	1	0	1	3	0	5
PANCREAS	15	13	2	8	7	0	0	4	1	4	1	3
OTHER GI	10	9	1	1	9	0	1	1	0	4	1	2
RESPIRATORY SYSTEM	174	157	17	91	83	6	37	7	34	60	0	13
LARYNX	29	26	3	13	16	0	1	0	9	14	0	2
LUNG and BRONCHUS	143	129	14	76	67	6	35	6	25	46	0	11
PLEURA	2	2	0	2	0	0	1	1	0	0	0	0
BONE/SOFT TISSUE	9	8	1	5	4	0	0	1	1	1	1	4
SKIN	43	37	6	23	20	3	17	2	4	5	1	5
MELANOMA	42	36	6	22	20	3	17	2	4	5	0	5
OTHER SKIN	1	1	0	1	0	0	0	0	0	0	1	0
BREAST	174	166	8	1	173	32	49	53	17	5	0	10
FEMALE GENITAL SYSTEM	42	32	10	0	42	0	14	2	4	5	1	6
CERVIX UTERI	5	2	3	0	5	0	1	0	1	0	0	0
CORPUS UTERI	25	21	4	0	25	0	12	2	2	2	1	2
OVARY	10	8	2	0	10	0	1	0	1	3	0	3
OTHER FEMALE	2	1	1	0	2	0	0	0	0	0	0	1
MALE GENITAL SYSTEM	99	83	16	99	0	1	2	60	12	6	0	2
PROSTATE	96	80	16	96	0	0	0	60	12	6	0	2
OTHER MALE	3	3	0	3	0	1	2	0	0	0	0	0
URINARY SYSTEM	45	37	8	28	17	12	10	6	1	5	0	3
BLADDER	24	18	6	16	8	9	2	5	0	1	0	1
KIDNEY/ RENAL PELVIS	20	18	2	11	9	2	8	1	1	4	0	2
URETER	1	1	0	1	0	1	0	0	0	0	0	0
BRAIN/ NERVOUS SYSTEM	40	36	4	16	24	0	0	0	0	0	36	0
THYROID/ENDOCRINE	20	20	0	7	13	0	7	0	0	4	6	3
HEMIC and LYMPHATIC	65	51	14	39	26	0	3	9	2	10	26	1
LEUKEMIA	18	14	4	10	8	0	0	0	0	0	14	0
MYELOMA	11	10	1	4	7	0	0	0	0	0	10	0
OTHER HEMATOPOIETIC	3	2	1	2	1	0	0	0	0	0	2	0
HODGKIN'S DISEASE	5	4	1	4	1	0	0	3	0	0	0	1
NON-HODGKIN'S LYMPHOMA	28	21	7	19	9	0	3	6	2	10	0	0
UNKNOWN	11	10	1	6	5	0	0	0	0	0	10	0

Cancer Cases at RCH

Riverside Community Hospital

Class of Case
2009 Cancer Cases

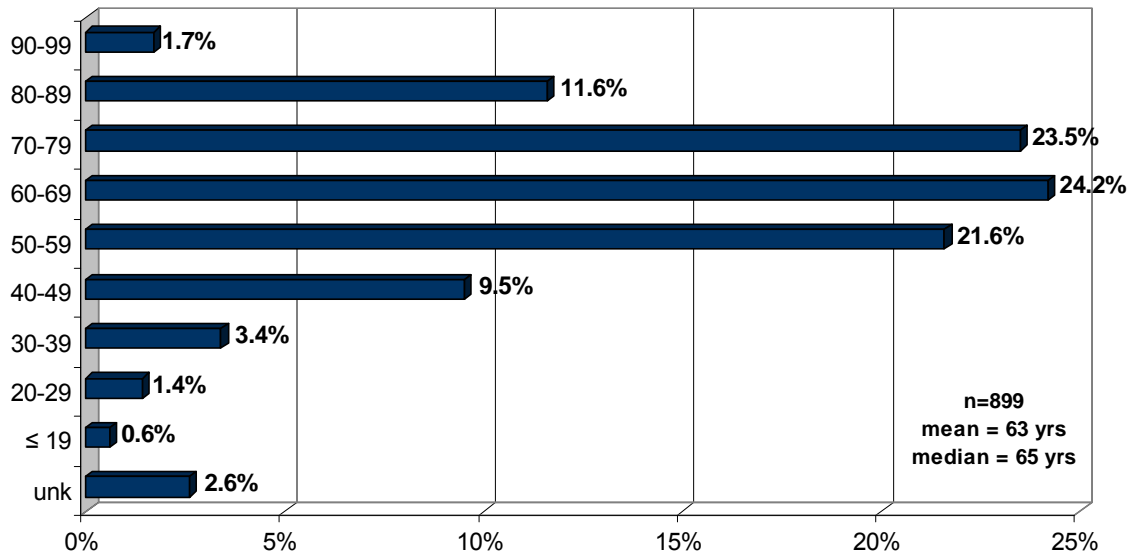


<i>Riverside Community Hospital</i>		
2009 Race Distribution - All Cases		
WHITE	774	86.1%
BLACK	80	8.9%
ASIAN	19	2.1%
OTHER / UNK	18	2.0%
FILIPINO	5	0.6%
JAPANESE	3	0.3%
Total	899	

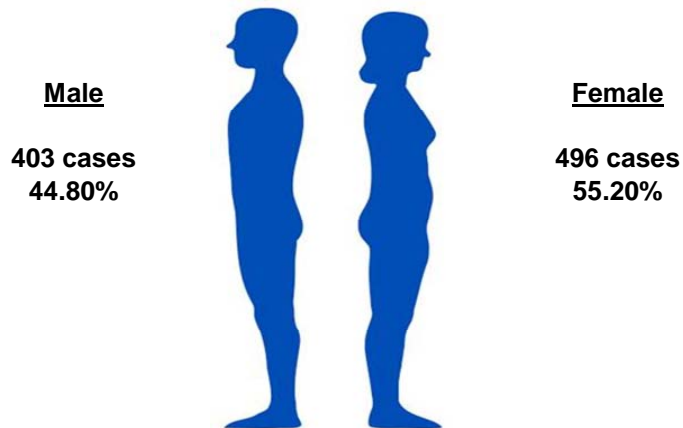
<i>Riverside Community Hospital</i>		
Top Sites - 2009 Cases		
BREAST	174	23.6%
LUNG (NSCLC)	143	19.4%
PROSTATE	96	13.0%
COLON	62	8.4%
MELANOMA SKIN	42	5.7%
LUNG (SCLC)	29	3.9%
NON HODGKINS LYMPHOMA	28	3.8%
BRAIN	25	3.4%
BLADDER	24	3.3%
CORPUS UTERI	23	3.1%
STOMACH	21	2.8%
KIDNEY & RENAL PELVIS	20	2.7%
LEUKEMIA	18	2.4%
RECTUM & RECTOSIGMOID	18	2.4%
PANCREAS	15	2.0%

Riverside Community Hospital

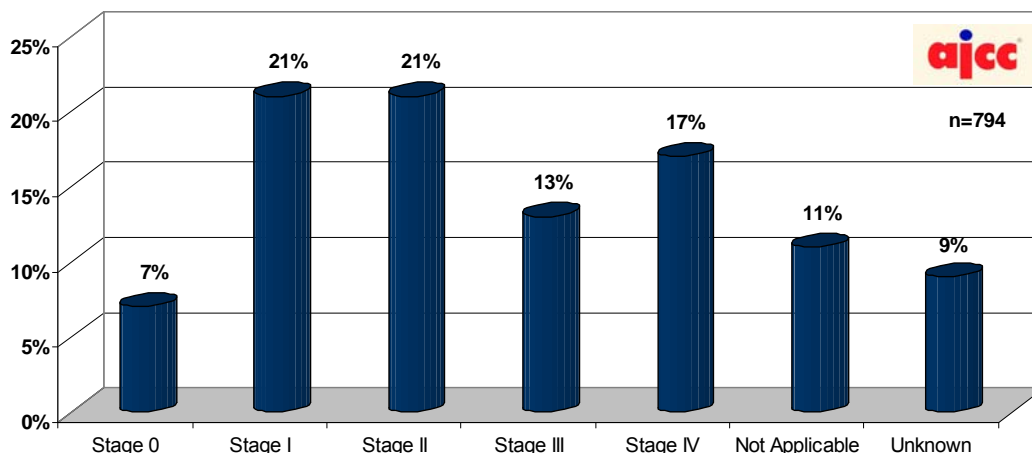
Age at Diagnosis
2009 Cancer Cases



Riverside Community Hospital
2009 Cases by Gender - All Cases



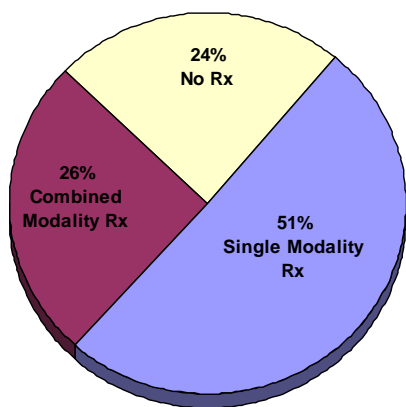
**Riverside Community Hospital
AJCC TNM Stage at Diagnosis ~ 2009 Analytic Cases**



Riverside Community Hospital

2009 First Course of Treatment - All Analytic Cases

Riverside Community Hospital
2009 First Course of Treatment
Single vs Combined Modality
All Analytic Cases ~ n=794



Single Modality Treatment

Surgery	320	40.3%
Chemotherapy	40	5.0%
Radiation Therapy	39	4.9%
Hormonal Therapy	2	0.3%
Total	401	51.0%

Combined Modality Treatment

Radiation + Chemotherapy	46	5.8%
Surgery + Chemotherapy	39	4.9%
Surgery + Radiation	42	5.3%
Surgery + Radiation + Chemotherapy	26	3.3%
Surgery + Radiation + Hormone	16	2.0%
Surgery + Hormone	15	1.9%
Radiation + Hormone	11	1.4%
Surgery + Radiation + Chemotherapy + Hormone	3	0.4%
Surgery + Chemotherapy + Hormone	2	0.3%
Chemotherapy + Hormone	2	0.3%
Radiation + Chemotherapy + Hormone	2	0.3%
Surgery + Immunotherapy	1	0.1%
Total	205	26.0%

No Treatment 188 24.0%

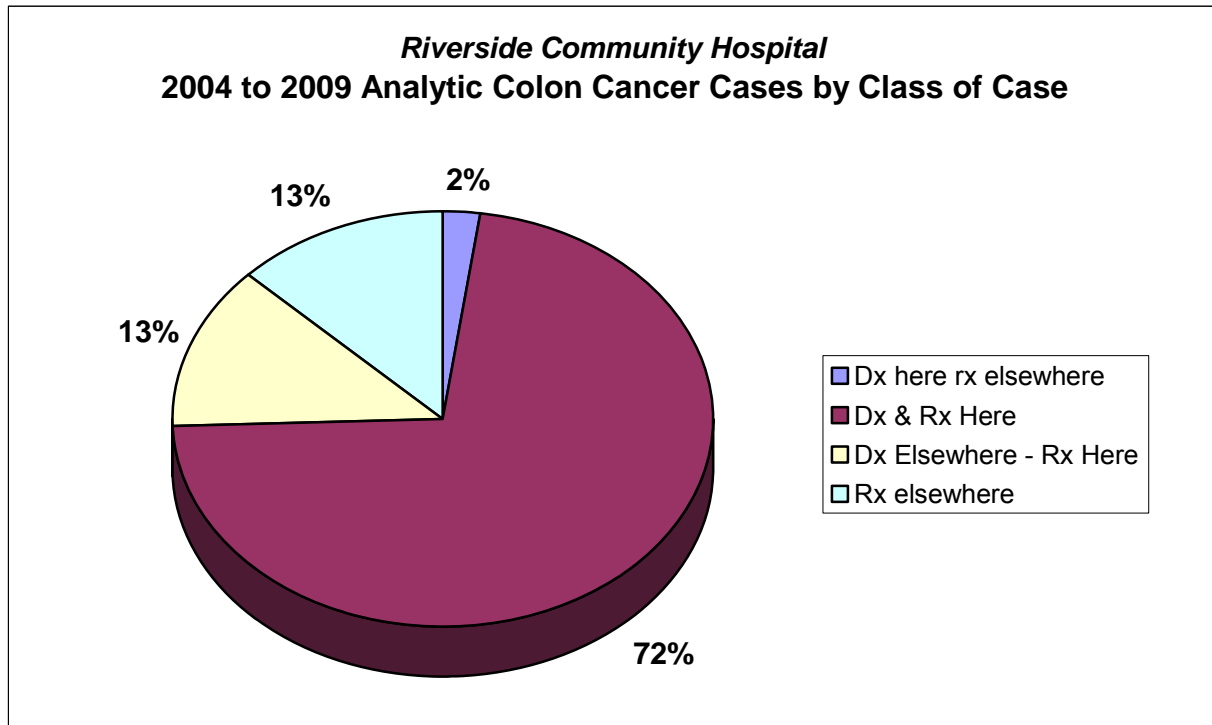
Case Total 794

Colon Cancer at RCH

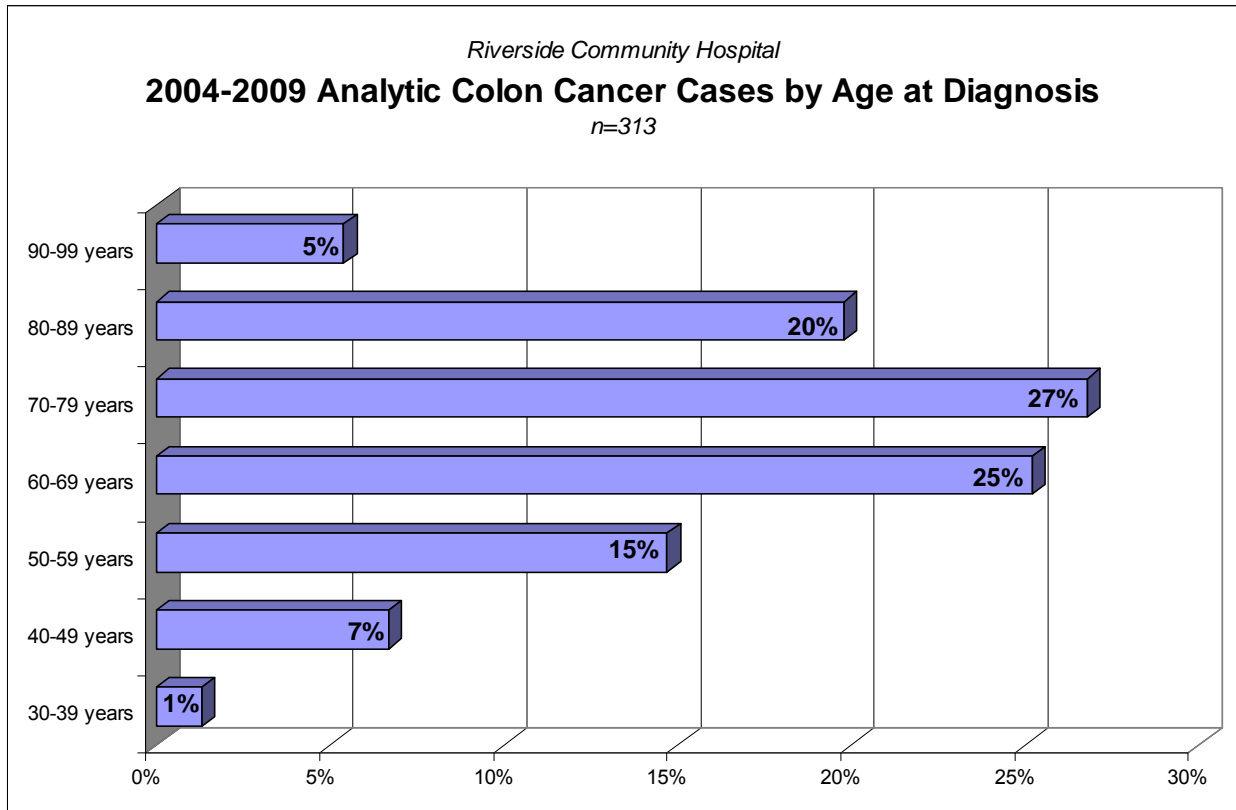
Incidence

Colorectal cancer is the third most common cancer among both men and women in the United States today. According to the American Cancer Society's *Cancer Facts and Figures 2010* publication an estimated 102,900 cases of colon cancer are expected to be diagnosed in the year 2010. For the entire population, incidence rates have been decreasing over the past twenty (20) years and, in 2006, had declined about 3% per year in men and 2.2% per year in women. This decrease has been largely attributed to colorectal cancer screening tests and the detection and removal of polyps before they progress to cancer. For adults < 50 years, however, the incidence rates are actually increasing by about 2% per year since 1994 for both men and women.

At Riverside Community Hospital (RCH), a total of 368 patients with colon cancer were seen during the years 2004 to 2009. 87% of these cases were diagnosed and/or received part of their first course of therapy at this facility. The other 13% were first seen here with recurrent or metastatic disease after being diagnosed and treated elsewhere.



In this report, we analyzed data from 313 analytic cancer cases (Class of Case 1 & 2), including both men and women that were diagnosed at RCH between the years of 2004-2009. Approximately 92% of the cases were age 50 and older (see graph below), mean age equaled 69 years and median age of 70 years.



Risk Factors

The risk of developing a colon cancer in an individual's lifetime increases with age and 91% of adults in the United States are diagnosed at age 50 and older. There are a number of modifiable risk factors associated with colon cancer, including: obesity, physical inactivity, diets high in red or processed meats, heavy alcohol consumption, long-term smoking, and possibly inadequate intake of fruits and vegetables. Some studies have suggested that regular use of nonsteroidal anti-inflammatory drugs (i.e., aspirin and menopausal hormone therapies) may reduce colon cancer risk. However, it is widely accepted that these drugs are not recommended for the prevention of colon cancer because of other serious adverse health effects.

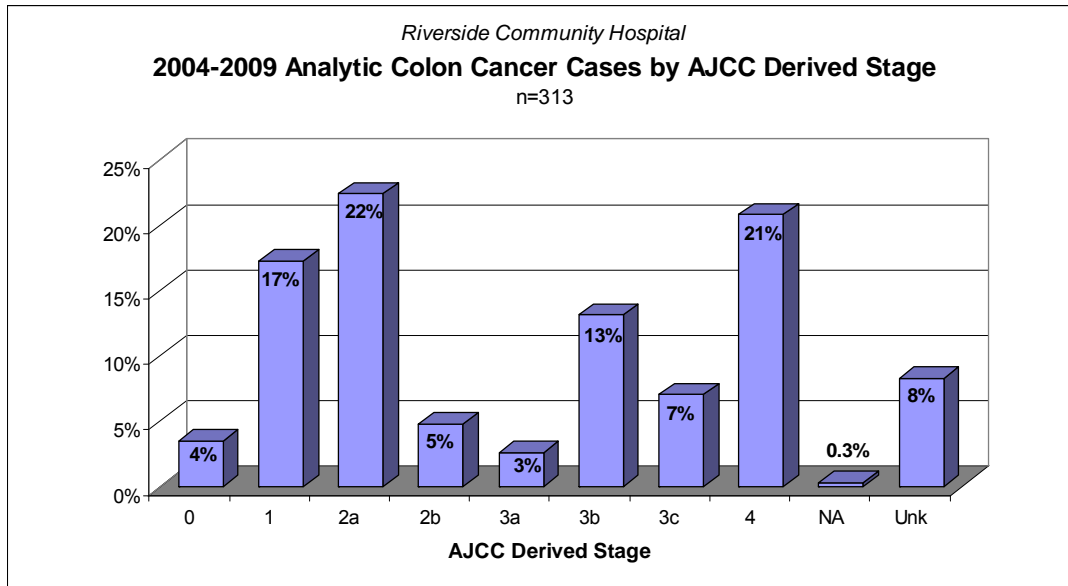
Genetics

Colon cancer risk is increased in individuals with certain inherited genetic mutations, such as familial adenomatous polyposis (FAP) and hereditary non-polyposis colorectal cancer (HNPCC) or Lynch Syndrome. Other genetic risk factors include a personal or family history of colon cancer and/or polyps, or a personal history of chronic inflammatory bowel disease. Some studies have also associated incidences of diabetes with colon cancer.

Screening

It is recommended that colon cancer screening for early detection begins at age 50 in both men and women. Screening reduces mortality by decreasing the incidence and allowing for treatment of malignancies at an earlier stage of disease.

At RCH approximately 21% of the new analytical colon cancer cases diagnosed between the years 2004-2009 were classified as early stage, or AJCC Stage 0 or 1, 27% were Stage IIA-IIB and 71% assigned AJCC stages IIIA, IIIB or IIIC; Stage IV cases comprised 21% of the total analytic colon cancer population.



Histologies at time of diagnosis are shown on the table

Riverside Community Hospital
2004-2009 Analytic Colon Cancer Cases by Histology

	Year First Seen (Accession Year)						TOTAL
	2004	2005	2006	2007	2008	2009	
TOTAL	42	62	45	63	47	54	313
Neoplasm malignant	1	1	0	0	1	0	3
Carcinoma NOS	1	1	2	3	1	2	10
Carcinoma undifferentiated NOS	0	0	0	1	0	0	1
Adenocarcinoma NOS	23	43	31	41	32	30	200
Adenocarcinoma in adenomatous polyp	1	2	1	0	1	6	11
Adenocarcinoma in situ in villous adenoma	0	1	0	0	0	0	1
Adenocarcinoma in villous adenoma	2	2	1	1	0	6	12
Villous adenocarcinoma	1	0	0	0	0	0	1
Adenocarcinoma in situ in tubulovillous adenoma	0	2	0	1	1	1	5
Adenocarcinoma in tubulovillous adenoma	2	1	3	6	3	3	18
Mucinous adenocarcinoma	7	8	4	8	7	5	39
Mucin-producing adenocarcinoma	3	0	1	2	1	0	7
Signet ring cell carcinoma	0	1	2	0	0	1	4
below: Sarcoma NOS	1	0	0	0	0	0	1

Treatment

Surgery is the most common first course of treatment for colon cancers and in cases where the disease has not spread, surgery may be curative. Permanent colostomy is rarely needed today. Chemotherapy alone, or in combination with radiation may be given before or after surgery to most patients whose cancer has deeply invaded the bowel wall or spread to lymph nodes.



Adjuvant chemotherapy in generally healthy patients aged 70 years and older is effective and usually no more toxic than what is experienced in patients under the age of 70. Chemotherapy regimens referred to as FOLFOX (oxaliplatin, fluorouracil, and leucovorin) are often in patients with metastatic disease. Currently there are three targeted monoclonal antibody therapies approved by the FDA to treat metastatic colon cancer, including:

bevacizumab (Avastin) which blocks the growth of blood vessels to the tumor and cetuximab (Erbix) and panitumumab (Vectibix) that blocks the effects of hormone-like factors that promote cell growth.

RCH takes great pride in delivering the highest quality cancer care using the best available technology. First course of treatment at RCH for all analytical cancer cases including both men and women during the years 2004-2009 is represented on the table below.

Riverside Community Hospital
2004-2009 Colon Cancer Cases
 Stage and First Course of Treatment

ANALYTIC, CLASS 1 & 2									
	Stage 0	Stage I	Stage IIA	Stage IIB	Stage III	Stage IV	NA	Unk	TOTAL
None	0	5	1	0	0	24	0	20	50
Surgery Only	11	48	64	13	44	23	1	4	208
Radiation Only	0	0	0	0	0	1	0	0	1
Chemotherapy Only	0	0	0	0	0	4	0	2	6
Surgery + Radiation	0	0	1	0	0	0	0	0	1
Surgery + Chemotherapy	0	1	3	2	25	11	0	0	42
Radiation + Chemotherapy	0	0	0	0	0	1	0	0	1
Surgery + Radiation + Chemotherapy	0	0	1	0	2	1	0	0	4
TOTAL	11	54	70	15	71	65	1	26	313

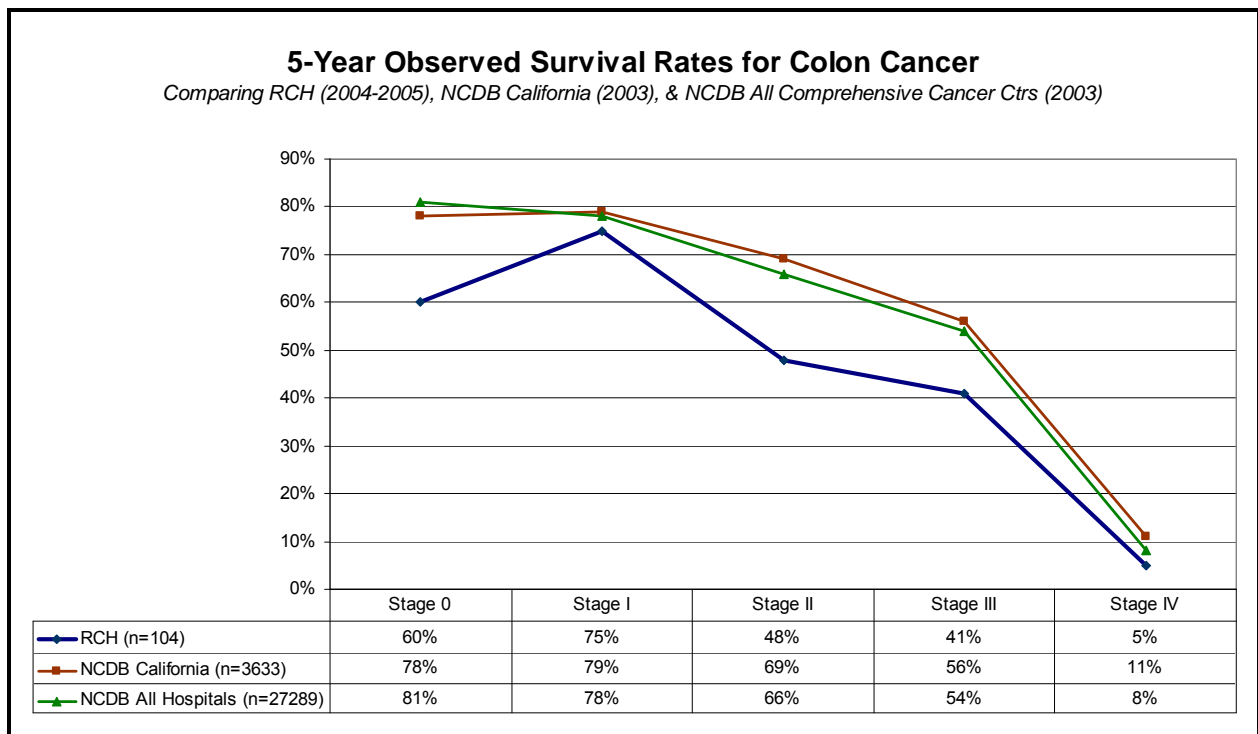
The NCCN guidelines (version 1.2011) for Colon Cancer indicates that adjuvant therapy is recommended for Stage IIA (T3,N0,M0) who are at high risk for systemic recurrence and should be considered for Stage IIA with no high risk factors. High risk factors for recurrence include: Grade 3-4, lymphatic / vascular invasion, bowel obstruction, <12 lymph nodes examined, perineural invasion, localized perforation, or close, indeterminate margins.

At RCH, the cancer registry data indicates that surgery alone was given in 64 of the Stage IIA patients. Additional treatment may have been given for these patients; the cancer registry will attempt to obtain complete treatment information for these cases from the medical oncology physician offices.

Survival

An estimated 51,370 deaths from colorectal cancer are expected in 2010 which accounts for 9% of all cancer deaths in the United States. Mortality rates are declining in both men and women with the greatest decline being 3.9% in men between the years 2002 to 2006 and 3.4% per year in women. As noted above, this reflects declining incidence rates and improvements in early detection and treatment of polyps before malignancy.

Survival outcomes were analyzed using the 2004-2005 RCH cancer registry data with comparison to the National Cancer Database (NCDB) 5-year observed survival rates as shown in the figure below. Observed survival is the actual percentage of patients still alive at five-years after the diagnosis of cancer. It considers deaths from all causes, cancer or otherwise.



While the survival rates for RCH are considerably lower for Stage 0, II and III, this most likely due to the low volume of cases that could included in this analysis. Because the RCH’s Cancer Registry NCDB reference date is 2004, cases for prior years were excluded because follow-up has not been collected for these cases.

RCH Volume of Cases	
Stage 0	4
Stage I	23
Stage II	26
Stage III	21
Stage IV	12

Ongoing monitoring of colon cancer outcomes data will be conducted by Cancer Committee to determine if the survival variance continues and to identify potential opportunities for improving patient care.

Cancer Committee

H. Jhangiani MD	Chairman, Medical Oncology
E. Reyes MD	CLP, Medical Oncology
B. Choi MD	Medical Oncology
D. Masee MD	Radiology
D. Okada MD	Pathology
G. Goswami MD	Radiology
R. Lau MD	Radiation Oncology
G. Strother MD	Family Medicine
L. Arias	Director, Radiation Oncology
J. Bartulis CTR	Cancer Registry
J. Carlson LCSW	Social Services
D. Caruso RN	Radiation Oncology
D. Dietrich RN	Radiation Oncology
Y. Harriman	Supervisor, Pathology
A. Henson	American Cancer Society
J. Hiller	Director, Rehab Services
J. O'Neill	Radiation Therapist
S. Page	Director, Laboratory
P. Randall RHIT CTR	CoC Consultant
C. Reid-Brown	Director, Business Development
G. Snow CHAM	Supervisor, HIM
M. Derro CPMSM	Coordinator, Medical Staff

Cancer Program Activities

Meet Our Cancer Center Staff



In The News

- Fitness Expo Launches Riverside Family Health Initiative. *Courtesy of The Press Enterprise* - September 2010
- Junior League of Riverside, Inc. Hosts 1st Annual *fitEXPO* - Free to the Public. September 2010
- "Laughter is the Best Medicine" - Riverside Community Hospital Celebrates Life with Cancer Survivors on National Cancer Survivors Day. July 2010
- Riverside Community Hospital Announces Appointment of New Chief Nursing Officer. June 2010
- Riverside Community Hospital's Cancer Center Earns National Accreditation & Outstanding Achievement Award. March 2009



Winning the Fight, before the battle begins...



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