Colorectal Cancer in Florida (1991-1999)
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About the Colon and the Rectum
The colon and the rectum form a muscular tube, located in the abdominal cavity, and are part of the body’s digestive system. The colon consists of the largest part of the large intestine, spanning over 6 feet, whereas the rectum consists of the last 8-10 inches. After food passes through the stomach, the digestive process continues in the colon and the rectum. Their role in the digestive process is to absorb the nutrients from food and store the waste until it passes out of the body.

Figure I
Colon, Rectum, and Other Parts of Digestive System

About Colorectal Cancer in General
The symptoms of colorectal cancer can be: presence of blood or mucus in the stools, changes in the normal bowel habits, weight loss, pain in the abdomen and bloating. Anemia can also occur, usually as a result of on and off bleeding of tumors, which in turn leads to fatigue and shortness of breath. In other words, the symptoms of colorectal cancer are similar to those of a lot of other diseases. A lot of patients do not present with any symptoms at all.

Colorectal Cancer and Risk Factors
As with most cancers, the risk of developing colorectal cancer increases with age. Risk factors for colorectal cancer include presence of benign polyps in the inner wall of the colon and the rectum and inflammatory bowel disease, such as ulcerative colitis. Family history of adenomatous polyposis, or colorectal cancer in first-degree relatives, especially diagnosed at a young age, increase the risk of developing colorectal cancer. High animal fat diets, such as those consisting of red meats, may increase a person’s risk of developing colorectal cancer.

Florida and US
Nationally, colorectal cancer is the 3rd most common non-dermatologic cancer and the 3rd leading cause of death in both men and women. In 1999 over 100,000 cases of colorectal cancer were reported in the US, bringing the national age adjusted incidence rate to 54.3 cases per 100,000 person/years. The mortality rates for the same year were 21.1 cases per 100,000 person/years. Most colorectal cancers are diagnosed in men and women over the age of 50.

1 Source: http://www.cancer.gov/cancerinfo
The incidence rates observed in Florida are similar to those observed in the rest of the country\(^3\). In 1999, the age-adjusted incidence rate in Florida for males was 68.5 cases per 100,000 person/years, compared to 66.4 per 100,000 person/years in the US\(^4\). For females the corresponding rate for Florida was 49.6 per 100,000 person/years, compared to 48.5 per 100,000 person/years in the US.

![Figure II](http://www.cdc.gov/cancer/npcr/uscs/report/Incidence_Area/index.htm)

In the US, only minor differences in both incidence and mortality are observed between different racial groups and the same is true for Florida, with almost identical mortality rates for whites and non-whites.

![Figure III](http://www.cdc.gov/cancer/npcr/uscs/report/Incidence_Area/index.htm)

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\(^3\) Source American Cancer Society, Cancer Facts and Figures 2002

Description of patients and the tumors diagnosed in Florida
Over 100,000 colorectal cancers were diagnosed among Floridians between 1991 and 1999. The majority of the tumors were classified as adenocarcinomas (65.9%); almost half of them were moderately differentiated (50.9%). About half of them were found in the ascending colon and the cecum (26.1%) or the sigmoid colon (22.8%). Table I and Figure VI below describe the morphologic and topologic distribution of these tumors.

Table I

<table>
<thead>
<tr>
<th>Morphologic Distribution of Colorectal Tumors</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Adenocarcinoma</td>
<td>65.9</td>
</tr>
<tr>
<td>Adenocarcinoma in Tubulovillous Adenoma</td>
<td>5.2</td>
</tr>
<tr>
<td>Adenocarcinoma in Adenomatous Polyp</td>
<td>5.1</td>
</tr>
<tr>
<td>Mucinous Adenocarcinoma</td>
<td>4.7</td>
</tr>
<tr>
<td>Neoplasm malignant, NOS</td>
<td>4.6</td>
</tr>
<tr>
<td>Mucin-producing Adenocarcinoma</td>
<td>4.2</td>
</tr>
<tr>
<td>Carcinoma</td>
<td>4.2</td>
</tr>
<tr>
<td>Adenocarcinoma in Villous Adenoma</td>
<td>3.3</td>
</tr>
<tr>
<td>Other</td>
<td>2.8</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Figure VI

Distribution of Colorectal Cancer by Site
Florida 1991-1999

The vast majority of the colorectal cancers in Florida, for that period, were diagnosed in whites (93.4%) and non-Hispanics (91.1%). Forty eight percent of these cancers were diagnosed in women and 52% in men. The median age of the patients diagnosed with colorectal cancer was 72 years. The majority of these tumors were diagnosed at regional or distance stage (54%).
Florida Trends over Time

Despite the consistently higher incidence rates among white males compared to non-white males, the mortality rates are almost identical for men of both race groups. The trend observed in the incidence rates of white females being consistently slightly higher than those of non-white females is inverted in the mortality figures.

Figure VIII

An increase in colonoscopy and other early screening methods, should reflect on the incidence rates as an increase in the rates of the localized disease and a decrease in the rates of regional or distant disease. In Florida the only noticeable trend was a slight increase in the incidence rates of local disease for non-whites and a simultaneous slight decrease in the incidence rates of regionally staged colorectal cancers. For non-
white females, we observed a statistically significant decrease of 2.7% in the annual in the incidence rates of regional disease. There was also a statistically significant decrease in the incidence rates of distant disease for non-white males, leading to an estimated annual percent decrease of 4.4%.

**Figure IV**

*Stage Specific Incidence Rates of Colorectal Cancer*
**Prevention and Treatment**

There is evidence that certain adenomatous polyps can become cancerous. Therefore, some cases of colorectal cancer may be preventable. Screening tests to detect and remove these polyps are widely available such as the Fecal Occult Blood test. This test, however, is considered non-specific and more emphasis is being placed on colonoscopy in the past few years. For patients over the age of 50, colonoscopy at 3-5 year intervals is recommended for early detection of colorectal cancer in asymptomatic patients. In 2003, the American Cancer Society published guidelines for colorectal cancer screening and an evaluation of the latest technology available.\(^5\)

Colorectal cancer survival is closely related to the clinical and pathological stage of the disease at diagnosis. When diagnosed early, it is easier to treat. Five-year survival for cancer limited to the bowel wall at the time of diagnosis approaches 90 percent. Survival at 5 years is 35 to 60 percent when lymph nodes are involved and less than 10 percent when patients are diagnosed with metastatic disease\(^6\). However, despite the accepted screening guidelines, including sigmoidoscopy and colonoscopy, screening levels remain low. Information from the National Health Interview Survey indicates that in 1992 only 17.3 percent of people 50 years of age or older had undergone fecal occult blood testing in the previous year, and 9.4 percent had undergone sigmoidoscopy in the previous 3 years.

Various treatment options exist for colorectal cancer, depending on the stage at which it is diagnosed, the tumor’s differentiation or mucin production. The treatment usually consists of surgery and adjuvant chemotherapy. Immunotherapeutic methods, using monoclonal antibodies, are being tested in clinical trials as well as cancer vaccines for patients with advanced colorectal cancer. A number of on-going clinical trials, offering non-standard treatment, are also open for patient participation. Information on these trials can be obtained by contacting the NCI Cancer Information Service at 1-800-4-CANCER, or the NCI Cancer Trials web page at [http://cancertrials.nci.nih.gov](http://cancertrials.nci.nih.gov)

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\(^5\) Source: Guidelines for the Early Detection of Cancer, 2003, American Cancer Society

\(^6\) Source: Agency for Health Care Policy and Research, [http://www.ahcpr.gov/clinic/colorsum.htm](http://www.ahcpr.gov/clinic/colorsum.htm)