

CANCER BRIEF: Colorectal Cancer

Brief #2, March 2012



This *Cancer Brief* is one of a series of examinations of cancer in New York State. Each of these *Briefs* offers policymakers and the public information on how best to combat cancer or its impacts on patients through policy changes.

Problem: More than half (56.5 percent) of all colon cancers detected statewide during the time period 2004-2008 were found at later stages when there are fewer treatment options and survival rates are lower. This is only a small improvement from the 62.3 percent rate of late-stage diagnosis during the time period 1994-1998.

Solution: Increase the number of New Yorkers with insurance coverage that includes colorectal cancer screening. Ensure adequate state funding for screening programs for those without health insurance.

Summary: Although more New Yorkers are being screened for colon cancer compared to ten years ago, a significant number of colon cancers still are being found at a later stage.

Colon cancer is the third leading cause of cancer death in both men and women in New York. It doesn't need to be. The earlier colon cancer is found the better the chances of survival. The good news is that more people in New York are taking advantage of screening tools available; but 30% of New Yorkers over age 50 aren't getting the screening tests they need. Consequently, many colon cancers are still being detected at later stages when survival rates are lower.

When are detected at an early, localized stage, the 5-year survival rate for colon cancer is 90 percent. After the cancer has spread to involve adjacent organs or lymph nodes, the 5-year survival rate drops to 68 percent. For persons with distant metastases, the 5-year survival is 10 percent. A recent study confirms that one of the recommended screening tests, colonoscopy, can prevent colon cancer from ever developing. It allows doctors to detect and remove precancerous polyps before they become life-threatening malignancies. Use of this test has increased significantly over the past ten years. The data shows that the incidence of colorectal cancer in New York declined by 19.7 percent since the mid-1990s. Experts attribute the decline in part to increased screening rates.

Statewide: Detection of Later Stage Colorectal Cancer Averages Nearly Sixty Percent Throughout the State

The latest statewide data from the Centers for Disease Control and Prevention Behavioral Risk Factor Surveillance Survey show that in 2010, 70 percent of New Yorkers over 50 reported having had one of the tests recommended in the American Cancer Society:¹ fecal occult blood

¹ New York State Dept. of Health, State Cancer Registry, 2011 and American Cancer Society, Cancer Facts & Figures, 2011

tests or sigmoidoscopy or colonoscopy. Tragically, this rate is not high enough since over 55 percent of colon cancers in the state are diagnosed at later stages (2004-2008 averages).

Local: While Screening Rates Have Been Improving, Much More Needs To Be Done. In Nearly Every County, Roughly Half of All Colon Cancers are Found at Later Stages. The accompanying table outlines rates of later stage (regional or distant spread) cancer by county throughout the state. These data reveal that in nearly all counties, more than half of all cancer diagnoses are later stage, when there are fewer treatment options and survival rates are lower.

(Care should be taken in interpreting the rates presented. The actual number of cases in most counties is relatively small and the rates presented have wide margins of error, meaning that differences among counties may be due in part or entirely to statistical chance.)

Colon Cancer Rates, New York State

County	Incidence Rates			Mortality Rates			Percent Diagnosed At An Early Stage		
	1994-1998	2004-2008	% Change Over Time	1994-1998	2004-2008	% Change Over Time	1994-1998	2004-2008	% Change Over Time
New York State	60.8	48.8	-19.7%	24.5	16.7	-31.8%	39.8%	43.5%	9.3%
Albany	57.4	49.2	-14.3%	24.8	16.9	-31.9%	35.1%	43.9%	25.1%
Allegany	63.2	55.6	-12.0%	28.3	22.2	-21.6%	38.0%	40.1%	5.5%
Bronx	58.0	50.3	-13.3%	25.3	18.5	-26.9%	39.2%	43.4%	10.7%
Broome	57.6	54.9	-4.7%	21.4	16.2	-24.3%	35.5%	46.4%	30.7%
Cattaraugus	62.2	56.8	-8.7%	24.9	15.9	-36.1%	48.2%	39.8%	-17.4%
Cayuga	58.5	45.3	-22.6%	23.2	17.2	-25.9%	52.9%	50.3%	-4.9%
Chautauqua	67.4	44.3	-34.3%	24.4	15.9	-34.8%	42.1%	45.3%	7.6%
Chemung	56.9	48.1	-15.5%	20.3	18.0	-11.3%	33.6%	54.5%	62.2%
Chenango	57.1	43.6	-23.6%	26.6	16.9	-36.5%	37.0%	42.1%	13.8%
Clinton	65.0	55.8	-14.2%	26.1	15.0	-42.5%	31.3%	54.5%	74.1%
Columbia	55.3	47.3	-14.5%	27.1	13.9	-48.7%	39.1%	39.7%	1.5%
Cortland	56.5	52.8	-6.5%	19.8	20.7	4.5%	51.7%	36.8%	-28.8%
Delaware	46.9	49.3	5.1%	23.1	17.9	-22.5%	36.1%	38.4%	6.4%
Dutchess	60.4	49.2	-18.5%	26.2	17.2	-34.4%	40.1%	38.5%	-4.0%
Erie	57.1	47.8	-16.3%	24.6	16.7	-32.1%	49.6%	45.6%	-8.1%
Essex	72.9	50.6	-30.6%	32.7	15.6	-52.3%	27.9%	51.8%	85.7%
Franklin	65.7	57.2	-12.9%	32.3	19.9	-38.4%	43.8%	49.3%	12.6%
Fulton	64.2	57.7	-10.1%	26.3	20.7	-21.3%	40.7%	37.1%	-8.8%
Genesee	64.5	48.6	-24.7%	28.4	16.6	-41.5%	52.0%	36.0%	-30.8%
Greene	63.2	61.6	-2.5%	28.7	24.2	-15.7%	31.1%	42.5%	36.7%
Hamilton	61.4	49.2	-19.9%	33.9	14.0	-58.7%	36.4%	26.3%	-27.7%
Herkimer	66.3	52.9	-20.2%	25.4	16.8	-33.9%	31.5%	39.4%	25.1%
Jefferson	56.8	50.6	-10.9%	25.5	17.4	-31.8%	48.4%	40.6%	-16.1%
Kings	64.0	50.9	-20.5%	24.7	17.6	-28.7%	36.8%	39.7%	7.9%
Lewis	65.3	53.7	-17.8%	24.5	18.2	-25.7%	40.5%	42.9%	5.9%
Livingston	70.0	62.1	-11.3%	28.3	20.0	-29.3%	42.1%	48.2%	14.5%
Madison	59.3	56.6	-4.6%	26.7	20.4	-23.6%	47.2%	50.0%	5.9%
Monroe	60.7	46.5	-23.4%	21.7	16.4	-24.4%	42.7%	50.2%	17.6%
Montgomery	74.6	66.3	-11.1%	29.9	17.7	-40.8%	41.2%	51.2%	24.3%

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Nassau	62.2	48.1	-22.7%	23.0	15.4	-33.0%	39.9%	45.2%	13.3%
New York	55.8	42.8	-23.3%	22.5	15.7	-30.2%	36.1%	42.3%	17.2%
Niagara	63.1	43.6	-30.9%	22.2	15.6	-29.7%	52.9%	47.4%	-10.4%
Oneida	58.1	47.9	-17.6%	25.3	18.0	-28.9%	45.2%	41.4%	-8.4%
Onondaga	52.5	48.3	-8.0%	23.8	16.7	-29.8%	52.4%	46.2%	-11.8%
Ontario	60.4	39.1	-35.3%	27.5	15.1	-45.1%	42.2%	49.6%	17.5%
Orange	67.1	49.7	-25.9%	25.1	18.1	-27.9%	39.0%	42.8%	9.7%
Orleans	62.8	57.4	-8.6%	25.2	16.8	-33.3%	38.6%	50.8%	31.6%
Oswego	61.9	54.4	-12.1%	26.5	18.5	-30.2%	57.8%	51.2%	-11.4%
Otsego	57.7	51.4	-10.9%	26.2	18.2	-30.5%	42.6%	43.6%	2.3%
Putnam	63.8	45.7	-28.4%	24.3	15.5	-36.2%	59.8%	35.6%	-40.5%
Queens	59.4	46.4	-21.9%	23.0	14.8	-35.7%	36.9%	40.5%	9.8%
Rensselaer	63.0	54.7	-13.2%	26.3	16.9	-35.7%	44.1%	41.2%	-6.6%
Richmond	67.2	49.3	-26.6%	28.5	18.5	-35.1%	28.3%	39.6%	39.9%
Rockland	65.0	46.2	-28.9%	24.2	13.2	-45.5%	31.2%	45.1%	44.6%
St. Lawrence	66.6	63.4	-4.8%	30.9	23.0	-25.6%	44.8%	54.8%	22.3%
Saratoga	59.2	51.1	-13.7%	25.0	16.8	-32.8%	35.5%	40.9%	15.2%
Schenectady	57.8	49.1	-15.1%	27.1	16.3	-39.9%	39.2%	42.2%	7.7%
Schoharie	57.6	47.8	-17.0%	23.7	20.4	-13.9%	31.1%	37.3%	19.9%
Schuyler	60.4	62.7	3.8%	23.0	25.1	9.1%	43.6%	51.4%	17.9%
Seneca	62.2	52.3	-15.9%	28.8	17.5	-39.2%	57.6%	51.0%	-11.5%
Steuben	54.5	51.9	-4.8%	28.2	17.4	-38.3%	35.8%	50.3%	40.5%
Suffolk	66.7	51.3	-23.1%	27.0	17.5	-35.2%	39.9%	44.9%	12.5%
Sullivan	73.1	44.5	-39.1%	30.2	18.5	-38.7%	37.4%	41.0%	9.6%
Tioga	52.6	51.4	-2.3%	22.1	16.2	-26.7%	37.9%	43.7%	15.3%
Tompkins	56.7	46.2	-18.5%	27.9	15.2	-45.5%	51.1%	45.3%	-11.4%
Ulster	67.5	54.6	-19.1%	26.9	18.8	-30.1%	41.9%	45.8%	9.3%
Warren	58.9	42.7	-27.5%	22.1	18.8	-14.9%	32.8%	35.1%	7.0%
Washington	66.5	41.8	-37.1%	26.9	15.7	-41.6%	29.3%	43.2%	47.4%
Wayne	69.0	51.9	-24.8%	28.6	13.6	-52.4%	38.5%	46.3%	20.3%
Westchester	59.0	47.2	-20.0%	22.3	15.4	-30.9%	39.9%	43.4%	8.8%
Wyoming	65.7	69.7	6.1%	29.2	16.7	-42.8%	47.0%	51.4%	9.4%
Yates	76.8	44.8	-41.7%	28.2	16.8	-40.4%	41.0%	51.7%	26.1%

The Tests: There are several screening tests for colon and rectum cancer. Each has advantages and drawbacks, relative to the others.

- **Flexible sigmoidoscopy:** A slender, flexible, hollow, lighted tube is inserted through the rectum into the colon by a trained examiner. The sigmoidoscope is about 2 feet long (60 cm) and provides a visual examination of the rectum and lower one-third of the colon (sigmoid colon). Simple bowel cleansing, usually with enemas, is necessary to prepare the colon, and the procedure is typically performed without sedation. If there is a polyp or tumor present, the patient is referred for a colonoscopy so that the colon can be examined further. This test should be done every five years.

- **Colonoscopy:** This procedure allows for direct visual examination of the colon and rectum. A colonoscope is similar to a sigmoidoscope, but is a much longer, more complex instrument, allowing visualization of the entire colon and removal of polyps if present. Before undergoing a colonoscopy, patients are instructed to take special laxative agents to completely cleanse the colon. Sedation is usually provided during the examination to minimize discomfort. If a polyp is found, it may be removed by passing a wire loop through the colonoscope to cut the polyp from the wall of the colon using an electric current. Studies show that colonoscopy is the most sensitive method for the detection of colorectal cancer or adenomatous polyps and the most effective in preventing death from colon cancer. This test should be done every ten years.

- **Barium enema with air contrast:** This procedure, which allows complete radiological examination of the colon, is also called a double-contrast barium enema (DCBE). Barium sulfate is introduced into the colon through the rectum and is allowed to spread throughout to partially fill and open the colon. Air is then introduced to expand the colon and increase the quality of x-rays that are taken. This method is less sensitive than colonoscopy for visualizing small polyps or cancers. If a polyp or other abnormality is seen, the patient should be referred for a colonoscopy so that the colon can be examined further. Use of DCBE for colorectal cancer screening is very uncommon today due to the increased availability of colonoscopy. This test should be done every five years.

- **Computed tomographic colonography (CTC):** Also referred to as virtual colonoscopy, this imaging procedure was introduced in the 1990s and results in detailed, cross-sectional, 2- or 3-dimensional views of the entire colon and rectum with the use of a special x-ray machine linked to a computer. Although a full bowel cleansing is necessary for a successful examination, CTC does not require sedation. A small, flexible tube is inserted into the rectum in order to allow air or carbon dioxide to open the colon; then the patient passes through the CT scanner, which creates multiple images of the interior colon. CTC is less invasive than other screening techniques, requires no recovery time, and typically takes approximately 10 to 15 minutes to complete. Patients with polyps of significant size (larger than 5 mm) or other abnormal results are referred for colonoscopy, sometimes on the same day in order to alleviate the necessity of a second bowel preparation. Studies have shown that the performance of CTC is similar to optical colonoscopy for the detection of invasive. This test is done every five years.

- **Fecal occult blood test (FOBT):** Cancerous tumors and some large polyps bleed intermittently into the intestine. The FOBT can detect very small quantities of blood in stool. The FOBT kit is obtained from a health care provider for use at home. Bleeding from colorectal cancer may be intermittent or undetectable, so accurate test results require annual testing that consists of collecting 2 to 3 samples (depending on the product) from consecutive bowel movements. Patients who have a positive gFOBT or FIT are referred for a colonoscopy to rule out the presence of polyps or cancer. Studies have shown that the regular use of these screening methods reduces the risk of death from colorectal cancer by 15% to 33%. In addition, FOBT has also been shown to decrease by 20% the incidence of colorectal cancer by detecting large polyps, resulting in their subsequent removal by colonoscopy. It is important to note that the effectiveness of FOBT is dependent on repeated screenings over time; a recent study indicated that a majority of patients who choose this testing option fail to adhere to a regular testing schedule. The recommended frequency is once a year.

For more information contact: Russ Sciandra, 518 449-5438 x12