Hospitalizations for Colorectal Cancer, 2006

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Introduction

In the United States, colorectal cancer (cancer of the large intestine or rectum) is the third most commonly diagnosed cancer in both men and women, and is also the third leading cause of cancer-related deaths.¹ Unlike most cancers, colorectal cancer is considered preventable in many cases with screening and early detection.² In 2008, an estimated 148,000 people were newly diagnosed with colorectal cancer.² Though treatment for colorectal cancer may vary based on the stage of the cancer, many patients require inpatient or outpatient surgery, outpatient chemotherapy and/or radiotherapy.

This Statistical Brief presents data from the Healthcare Cost and Utilization Project (HCUP) on characteristics of hospital stays related to the treatment of colorectal cancer in 2006, including cancers of the colon, rectum, and anus. Characteristics of stays for colorectal cancer are compared to all non-maternal, non-neonatal hospitalizations. Differences by age, gender, payer, and region are also investigated for principal and secondary colorectal cancer diagnoses. Additionally, common principal diagnoses and procedures associated with colorectal cancer-related stays are outlined. All differences between estimates noted in the text are statistically significant at the 0.05 level or better.

Findings

In 2006, there were nearly 571,700 hospitalizations related to colorectal cancer in the U.S., a rate of 191.4 hospitalizations per 100,000 population. About one in four colorectal cancer-related stays had a principal diagnosis of colorectal cancer (50.8 stays per 100,000 population) and resulted in $2.6 billion in hospital costs. As a secondary diagnosis, there were about 419,800 hospitalizations (140.5 stays per 100,000 population).

Since 1995, the overall rate of colorectal cancer-related hospital stays has remained relatively stable. However, hospitalizations primarily for colorectal cancer decreased by 15 percent between 1995 and 2006, while hospital stays that included colorectal cancer as a secondary diagnosis increased by 15 percent (figure 1).

**Utilization characteristics of colorectal cancer hospitalizations**

Although stays principally for colorectal cancer were nearly four days longer than the average non-maternal, non-neonatal hospitalization (8.8 days versus 5.1 days), the average cost per day was the same ($1,900 per day). Compared to the average hospitalization, the mean cost per day of stays with a secondary diagnosis of colorectal cancer was slightly lower ($1,700 versus $1,900), indicating a somewhat lower intensity of care for patients with a secondary diagnosis of colorectal cancer.

Patients hospitalized principally for colorectal cancer were less likely to be admitted through the emergency department (ED) than the average hospitalization (25.9 percent versus 55.7 percent), indicating most were planned hospitalizations. Patients with a secondary diagnosis of colorectal cancer were admitted through the ED at about the same rate as the average hospitalization (54.7 percent), suggesting that a large proportion were admitted for urgent care.

In-hospital deaths were significantly higher for stays involving colorectal cancer than the average non-maternal, non-neonatal hospitalization. In 2006, 4.5 percent of stays principally for colorectal cancer and 3.8 percent of hospitalization with colorectal cancer as a secondary diagnosis resulted in an in-hospital death—73 percent and 46 percent higher than the average non-maternal, non-neonatal hospital stay (2.6 percent).

Medicare was the most common primary payer for hospitalizations involving colorectal cancer, accounting for 59.1 percent of stays principally for colorectal cancer and 71.5 percent of hospitalizations with a secondary diagnosis of colorectal cancer. Private insurance was the second most common primary payer for both principal and secondary stays, at 29.7 and 19.7 percent, respectively. Medicaid covered about 5 percent of colorectal cancer-related hospitalizations. The uninsured accounted for 3.2 percent of principal colorectal cancer stays and 1.8 percent of stays with a secondary diagnosis of colorectal cancer—both less than the average non-maternal, non-neonatal hospitalization (5.8 percent).

**Colorectal cancer hospitalizations, by age and gender**

The average age of patients hospitalized with a colorectal cancer diagnosis was 10 to 14 years older than the average non-maternal, non-neonatal hospitalized patient (68.3 years and 72.2 years, respectively, versus 58.1 years). In fact, the rate of hospitalization for colorectal cancer was dramatically higher among patients 65 years and older (table 1 and figure 2). Patients under the age of 45 were rare—patients 44 years and younger accounted for only 5.3 percent of stays principally for colorectal cancer (7.1 stays per 100,000 population) and 3.7 percent of stays with a secondary colorectal cancer diagnosis (13.9 stays per 100,000 population). About two-thirds of colorectal cancer-related stays occurred among patients 65 years and older—a rate of 254.1 stays per 100,000 population for principal colorectal cancer and a rate of 818.0 stays per 100,000 population for stays with colorectal cancer as a secondary diagnosis.

Overall, males were hospitalized less frequently than females for colorectal cancer. Males accounted for 49.5 percent of stays principally for colorectal cancer and 48.6 percent of stays with a secondary colorectal cancer diagnosis (table 1). However, figure 3 indicates that males in older age groups had a much higher rate of hospitalization than females. In fact, males over the age of 65 had the highest rates of hospitalization among all colorectal cancer patients, with 281.4 stays per 100,000 population for principal colorectal cancer hospitalizations (20 percent higher than females in the same age group) and 920.4 stays per 100,000 population for stays with a secondary colorectal cancer diagnosis (24 percent higher than females in the same age group).

**Colorectal cancer hospitalizations, by region**

As shown in figure 4, the Northeast had the highest rates of colorectal cancer-related hospitalizations (247.6 stays per 100,000 population), while the West had the lowest rates (135.4 stays per 100,000 population).
population). However, rates of hospitalization by region varied by the type of colorectal cancer diagnosis. As a principal diagnosis, hospitalization rates for colorectal cancer were nearly equal in the Northeast, Midwest, and South. As a secondary diagnosis, the Northeast had a hospitalization rate of 192.3 stays per 100,000 population—twice the rate found in the West (95.8 stays per 100,000 population).

**Principal diagnoses for colorectal cancer hospitalizations**

Nearly three out of four hospitalizations related to colorectal cancer had the disease listed as a secondary diagnosis; another condition was generally listed as the principal reason for admission. Table 2 lists the top principal diagnoses for stays where colorectal cancer was present as any diagnosis. More than one-third of all colorectal cancer-related hospitalizations had some form of cancer or cancer therapy noted as the principal diagnosis, including colorectal cancer (26.6 percent), secondary malignancies (4.8 percent), chemotherapy or radiotherapy (3.1 percent), and other cancers (1.9 percent)—lung, prostate, breast, and other forms.

Other disorders affecting the gastrointestinal system were also common principal diagnoses for hospitalizations related to colorectal cancer. Intestinal obstruction without hernia accounted for 4.3 percent of stays, followed by other gastrointestinal disorders (2.4 percent) and gastrointestinal hemorrhage (1.5 percent). Other conditions reflect the severity of illness associated with cancer—pneumonia, fluid and electrolyte disorders, septicemia, and acute renal failure. About four percent of patients experienced some complication of medical care (2.4 percent) or device, implant or graft (1.9 percent). Most other conditions are associated with old age, regardless of the presence of a cancer-related stay.

**Common procedures associated with colorectal cancer-related hospitalizations**

Table 3 compares the frequency of the ten most common procedures performed during stays principally for colorectal cancer with the frequency of these procedures among hospitalization noting a secondary diagnosis of colorectal cancer. About 80 percent of stays principally for colorectal cancer had a colorectal resection (the standard surgical treatment used to remove malignant tumors in the colon), and one-fifth (21.8 percent) cited a colonoscopy or biopsy. In comparison, only 2.3 percent of stays with a secondary colorectal cancer diagnosis noted colorectal resection, while only 4.2 percent noted a colonoscopy or biopsy.

However, other procedures directly related to the diagnosis or surgical treatment of the colorectal cancer itself were common in all colorectal cancer-related hospitalizations. These procedures included blood transfusion, upper gastrointestinal endoscopy and biopsy, excision and lysis of peritoneal adhesions, and respiratory intubation and mechanical intubation.

**Data Source**


**Definitions**

*Diagnoses, ICD-9-CM, and Clinical Classifications Software (CCS)*

The principal diagnosis is that condition established after study to be chiefly responsible for the patient’s admission to the hospital. Secondary diagnoses are concomitant conditions that coexist at the time of admission or that develop during the stay.
ICD-9-CM is the International Classification of Diseases, Ninth Revision, Clinical Modification, which assigns numeric codes to diagnoses. There are about 13,600 ICD-9-CM diagnosis codes.

CCS categorizes ICD-9-CM diagnoses into a manageable number of clinically meaningful categories. This "clinical grouper" makes it easier to quickly understand patterns of diagnoses and procedures.

**Case Definition**
For this report, colorectal cancer was defined as CCS diagnoses:

- 14: Cancer of colon
- 15: Cancer of rectum and anus

**Types of hospitals included in HCUP**
HCUP is based on data from community hospitals, defined as short-term, non-Federal, general and other hospitals, excluding hospital units of other institutions (e.g., prisons). HCUP data include OB-GYN, ENT, orthopedic, cancer, pediatric, public, and academic medical hospitals. They exclude long-term care, rehabilitation, psychiatric, and alcoholism and chemical dependency hospitals, but these types of discharges are included if they are from community hospitals.

**Unit of analysis**
The unit of analysis is the hospital discharge (i.e., the hospital stay), not a person or patient. This means that a person who is admitted to the hospital multiple times in one year will be counted each time as a separate "discharge" from the hospital.

**Costs and charges**
Total hospital charges were converted to costs using HCUP Cost-to-Charge Ratios based on hospital accounting reports from the Centers for Medicare and Medicaid Services (CMS). Costs will tend to reflect the actual costs of production, while charges represent what the hospital billed for the case. For each hospital, a hospital-wide cost-to-charge ratio is used because detailed charges are not available across all HCUP States. Hospital charges reflect the amount the hospital charged for the entire hospital stay and does not include professional (physician) fees. For the purposes of this Statistical Brief, costs are reported to the nearest hundred.

**Payer**
Payer is the expected primary payer for the hospital stay. To make coding uniform across all HCUP data sources, payer combines detailed categories into more general groups:

- Medicare includes fee-for-service and managed care Medicare patients.
- Medicaid includes fee-for-service and managed care Medicaid patients. Patients covered by the State Children's Health Insurance Program (SCHIP) may be included here. Because most state data do not identify SCHIP patients specifically, it is not possible to present this information separately.
- Private insurance includes Blue Cross, commercial carriers, and private HMOs and PPOs.
- Other includes Worker's Compensation, TRICARE/CHAMPUS, CHAMPVA, Title V, and other government programs.
- Uninsured includes an insurance status of "self-pay" and "no charge."

When more than one payer is listed for a hospital discharge, the first-listed payer is used.

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**Region**
Region is one of the four regions defined by the U.S. Census Bureau:

- Midwest: Ohio, Indiana, Illinois, Michigan, Wisconsin, Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, and Kansas
- South: Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida, Kentucky, Tennessee, Alabama, Mississippi, Arkansas, Louisiana, Oklahoma, and Texas

**Admission source**
Admission source indicates where the patient was located prior to admission to the hospital. Emergency admission indicates the patient was admitted to the hospital through the emergency department. Admission from another hospital indicates the patient was admitted to this hospital from another short-term, acute-care hospital. This usually signifies that the patient required the transfer in order to obtain more specialized services that the originating hospital could not provide. Admission from long-term care facility indicates the patient was admitted from a long-term facility such as a nursing home.

**Discharge status**
Discharge status indicates the disposition of the patient at discharge from the hospital, and includes the following six categories: routine (to home), transfer to another short-term hospital, other transfers (including skilled nursing facility, intermediate care, and another type of facility such as a nursing home), home health care, against medical advice (AMA), or died in the hospital.

**About HCUP**
HCUP is a family of powerful health care databases, software tools, and products for advancing research. Sponsored by the Agency for Healthcare Research and Quality (AHRQ), HCUP includes the largest all-payer encounter-level collection of longitudinal health care data (inpatient, ambulatory surgery, and emergency department) in the United States, beginning in 1988. HCUP is a Federal-State-Industry Partnership that brings together the data collection efforts of many organizations—such as State data organizations, hospital associations, private data organizations, and the Federal government—to create a national information resource.

HCUP would not be possible without the contributions of the following data collection Partners from across the United States:

- **Arizona** Department of Health Services
- **Arkansas** Department of Health
- **California** Office of Statewide Health Planning and Development
- **Colorado** Hospital Association
- **Connecticut** Hospital Association
- **Florida** Agency for Health Care Administration
- **Georgia** Hospital Association
- **Hawaii** Health Information Corporation
- **Illinois** Department of Public Health
- **Indiana** Hospital Association
- **Iowa** Hospital Association
- **Kansas** Hospital Association
- **Kentucky** Cabinet for Health and Family Services
- **Maine** Health Data Organization
- **Maryland** Health Services Cost Review Commission
- **Massachusetts** Division of Health Care Finance and Policy
Michigan Health & Hospital Association  
Minnesota Hospital Association  
Missouri Hospital Industry Data Institute  
Nebraska Hospital Association  
Nevada Department of Health and Human Services  
New Hampshire Department of Health & Human Services  
New Jersey Department of Health and Senior Services  
New York State Department of Health  
North Carolina Department of Health and Human Services  
Ohio Hospital Association  
Oklahoma State Department of Health  
Oregon Association of Hospitals and Health Systems  
Rhode Island Department of Health  
South Carolina State Budget & Control Board  
South Dakota Association of Healthcare Organizations  
Tennessee Hospital Association  
Texas Department of State Health Services  
Utah Department of Health  
Vermont Association of Hospitals and Health Systems  
Virginia Health Information  
Washington State Department of Health  
West Virginia Health Care Authority  
Wisconsin Department of Health and Family Services

About the NIS

The HCUP Nationwide Inpatient Sample (NIS) is a nationwide database of hospital inpatient stays. The NIS is nationally representative of all community hospitals (i.e., short-term, non-Federal, non-rehabilitation hospitals). The NIS is a sample of hospitals and includes all patients from each hospital, regardless of payer. It is drawn from a sampling frame that contains hospitals comprising about 90 percent of all discharges in the United States. The vast size of the NIS allows the study of topics at both the national and regional levels for specific subgroups of patients. In addition, NIS data are standardized across years to facilitate ease of use.

For More Information

For more information about HCUP, visit www.hcup-us.ahrq.gov.

For additional HCUP statistics, visit HCUPnet, our interactive query system, at www.hcup.ahrq.gov.


For a detailed description of HCUP, more information on the design of the NIS, and methods to calculate estimates, please refer to the following publications:


Suggested Citation

http://www.hcup-us.ahrq.gov/reports/statbriefs/sb69.pdf

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AHRQ welcomes questions and comments from readers of this publication who are interested in obtaining more information about access, cost, use, financing, and quality of health care in the United States. We also invite you to tell us how you are using this Statistical Brief and other HCUP data and tools, and to share suggestions on how HCUP products might be enhanced to further meet your needs. Please e-mail us at hcup@ahrq.gov or send a letter to the address below:

Irene Fraser, Ph.D., Director
Center for Delivery, Organization, and Markets
Agency for Healthcare Research and Quality
540 Gaither Road
Rockville, MD 20850
Table 1. Characteristics of hospitalizations related to colorectal cancer compared to hospitalizations for all conditions, 2006

<table>
<thead>
<tr>
<th></th>
<th>Hospital stays principally for colorectal cancer</th>
<th>Hospital stays with a secondary diagnosis of a colorectal cancer</th>
<th>Hospital stays for all conditions*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of hospitalizations</td>
<td>151,900</td>
<td>419,800</td>
<td>30,142,300</td>
</tr>
<tr>
<td>Stays per 100,000 population</td>
<td>50.8</td>
<td>140.5</td>
<td>10,089.3</td>
</tr>
<tr>
<td><strong>Utilization characteristics</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean length of stay, days</td>
<td>8.8</td>
<td>5.6</td>
<td>5.1</td>
</tr>
<tr>
<td>Mean cost per hospitalization</td>
<td>$17,000</td>
<td>$9,800</td>
<td>$9,900</td>
</tr>
<tr>
<td>Mean cost per day</td>
<td>$1,900</td>
<td>$1,700</td>
<td>$1,900</td>
</tr>
<tr>
<td>Aggregate costs</td>
<td>$2.6 billion</td>
<td>$4.1 billion</td>
<td>$297.6 billion</td>
</tr>
<tr>
<td>Percentage admitted through the emergency department</td>
<td>25.9%</td>
<td>54.7%</td>
<td>55.7%</td>
</tr>
<tr>
<td>Percentage died in hospital</td>
<td>4.5%</td>
<td>3.8%</td>
<td>2.6%</td>
</tr>
<tr>
<td>Percentage by primary payer:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medicare</td>
<td>59.1%</td>
<td>71.5%</td>
<td>48.7%</td>
</tr>
<tr>
<td>Private insurance</td>
<td>29.7%</td>
<td>19.7%</td>
<td>29.5%</td>
</tr>
<tr>
<td>Medicaid</td>
<td>5.5%</td>
<td>5.1%</td>
<td>12.3%</td>
</tr>
<tr>
<td>Uninsured</td>
<td>3.2%</td>
<td>1.8%</td>
<td>5.8%</td>
</tr>
<tr>
<td><strong>Patient characteristics</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean age, years</td>
<td>68.3</td>
<td>72.2</td>
<td>58.1</td>
</tr>
<tr>
<td>Percentage by age group:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 to 44 years</td>
<td>5.3%</td>
<td>3.7%</td>
<td>18.5%</td>
</tr>
<tr>
<td>45 to 64 years</td>
<td>32.4%</td>
<td>23.7%</td>
<td>30.2%</td>
</tr>
<tr>
<td>65 years and older</td>
<td>62.3%</td>
<td>72.6%</td>
<td>44.7%</td>
</tr>
<tr>
<td>Percentage of patients male</td>
<td>49.5%</td>
<td>48.6%</td>
<td>46.4%</td>
</tr>
</tbody>
</table>

*Stays for neonates and maternal conditions have been excluded

Source: AHRQ, Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project, Nationwide Inpatient Sample, 2006
Table 2. Top 20 principal diagnoses among all colorectal cancer-related hospitalizations, 2006*

<table>
<thead>
<tr>
<th>Rank</th>
<th>Principal diagnosis</th>
<th>Number of stays</th>
<th>Percentage of all colorectal cancer hospitalizations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cancer of colon, rectum, or anus</td>
<td>151,900</td>
<td>26.6%</td>
</tr>
<tr>
<td>2</td>
<td>Secondary malignancies</td>
<td>27,600</td>
<td>4.8%</td>
</tr>
<tr>
<td>3</td>
<td>Intestinal obstruction without hernia</td>
<td>24,800</td>
<td>4.3%</td>
</tr>
<tr>
<td>4</td>
<td>Maintenance chemotherapy, radiotherapy</td>
<td>17,800</td>
<td>3.1%</td>
</tr>
<tr>
<td>5</td>
<td>Pneumonia</td>
<td>15,300</td>
<td>2.7%</td>
</tr>
<tr>
<td>6</td>
<td>Congestive heart failure, nonhypertensive</td>
<td>14,800</td>
<td>2.6%</td>
</tr>
<tr>
<td>7</td>
<td>Other gastrointestinal disorders</td>
<td>13,800</td>
<td>2.4%</td>
</tr>
<tr>
<td>8</td>
<td>Complications of surgical procedures or medical care</td>
<td>13,600</td>
<td>2.4%</td>
</tr>
<tr>
<td>9</td>
<td>Fluid and electrolyte disorders</td>
<td>12,700</td>
<td>2.2%</td>
</tr>
<tr>
<td>10</td>
<td>Septicemia (except in labor)</td>
<td>11,000</td>
<td>1.9%</td>
</tr>
<tr>
<td>11</td>
<td>Other cancers</td>
<td>10,800</td>
<td>1.9%</td>
</tr>
<tr>
<td>12</td>
<td>Complication of device, implant or graft</td>
<td>10,700</td>
<td>1.9%</td>
</tr>
<tr>
<td>13</td>
<td>Cardiac dysrhythmias</td>
<td>9,900</td>
<td>1.7%</td>
</tr>
<tr>
<td>14</td>
<td>Coronary atherosclerosis</td>
<td>9,700</td>
<td>1.7%</td>
</tr>
<tr>
<td>15</td>
<td>Gastrointestinal hemorrhage</td>
<td>8,700</td>
<td>1.5%</td>
</tr>
<tr>
<td>16</td>
<td>Urinary tract infections</td>
<td>8,700</td>
<td>1.5%</td>
</tr>
<tr>
<td>17</td>
<td>Acute and unspecified renal failure</td>
<td>8,300</td>
<td>1.5%</td>
</tr>
<tr>
<td>18</td>
<td>Rehabilitation care, fitting of prostheses, and adjustment of devices</td>
<td>7,500</td>
<td>1.3%</td>
</tr>
<tr>
<td>19</td>
<td>Acute myocardial infarction</td>
<td>7,300</td>
<td>1.3%</td>
</tr>
<tr>
<td>20</td>
<td>Acute cerebrovascular disease</td>
<td>7,100</td>
<td>1.2%</td>
</tr>
</tbody>
</table>

*Hospitalizations with colorectal cancer as a principal or secondary diagnosis (n=571,700)
Source: AHRQ, Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project, Nationwide Inpatient Sample, 2006
Table 3. Top 10 all listed procedures for principal colorectal cancer stays compared to stays with a secondary colorectal cancer diagnosis, 2006

<table>
<thead>
<tr>
<th>All listed procedure</th>
<th>Rank</th>
<th>Percentage of principal colorectal cancer stays (n=151,900)</th>
<th>Rank</th>
<th>Percentage of stays with a secondary diagnosis of colorectal cancer (n=419,800)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colorectal resection</td>
<td>1</td>
<td>80.2%</td>
<td>14</td>
<td>2.3%</td>
</tr>
<tr>
<td>Blood transfusion</td>
<td>2</td>
<td>22.8%</td>
<td>1</td>
<td>13.3%</td>
</tr>
<tr>
<td>Other OR lower GI therapeutic procedures</td>
<td>3</td>
<td>22.3%</td>
<td>8</td>
<td>4.5%</td>
</tr>
<tr>
<td>Colonoscopy and biopsy</td>
<td>4</td>
<td>21.8%</td>
<td>10</td>
<td>4.2%</td>
</tr>
<tr>
<td>Other vascular catheterization, not heart</td>
<td>5</td>
<td>13.5%</td>
<td>4</td>
<td>6.6%</td>
</tr>
<tr>
<td>Upper gastrointestinal endoscopy, biopsy</td>
<td>6</td>
<td>9.1%</td>
<td>6</td>
<td>5.2%</td>
</tr>
<tr>
<td>Excision, lysis peritoneal adhesions</td>
<td>7</td>
<td>8.1%</td>
<td>11</td>
<td>3.3%</td>
</tr>
<tr>
<td>Respiratory intubation and mechanical ventilation</td>
<td>8</td>
<td>7.1%</td>
<td>9</td>
<td>4.2%</td>
</tr>
<tr>
<td>Proctoscopy and anorectal biopsy</td>
<td>9</td>
<td>7.1%</td>
<td>48</td>
<td>0.8%</td>
</tr>
<tr>
<td>Other OR gastrointestinal therapeutic procedures</td>
<td>10</td>
<td>7.0%</td>
<td>13</td>
<td>2.6%</td>
</tr>
</tbody>
</table>

Source: AHRQ, Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project, Nationwide Inpatient Sample, 2006
Figure 1. Between 1995 and 2006, the rate of hospitalizations principally for colorectal cancer decreased 15 percent, while increasing 15 percent for secondary colorectal cancer.

The rate of hospitalizations with secondary diagnosis of colorectal cancer has increased 15% since 1995.

The rate of hospitalizations principally for colorectal cancer has decreased 15% since 1995.

Figure 2. The rate of colorectal cancer-related hospitalizations was dramatically higher among patients 65 years and older, 2006.
Figure 3. The rate of colorectal cancer-related hospitalizations was highest among men 65 years and older, 2006

Source: AHRQ, Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project, HCUPnet, Nationwide Inpatient Sample, 2006

Figure 4. The rate of hospitalization was highest in the Northeast for stays related to colorectal cancer, 2006

Source: AHRQ, Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project, HCUPnet, Nationwide Inpatient Sample, 2006