



**ACT: Assess-Connect-Teach
Final Report
June 30, 2010**

INTRODUCTION:

ACT: Assess-Connect-Teach is a colorectal cancer education and screening project conducted by the Chatham County Safety Net Planning Council (CCSNPC) from July 1, 2009 to June 30, 2010 funded by the Southeast Georgia Cancer Alliance (SEGCA) through the Georgia Cancer Coalition (GCC). The goal of ACT has been to increase colorectal cancer education and screening in uninsured adults in Southeast Georgia during the grant period. ACT provided colorectal cancer risk assessments to 575 uninsured adults and provided colorectal cancer screening to 183 uninsured adults in Southeast Georgia. By providing one-on-one education about modifiable risk factors, ACT incorporated colorectal cancer prevention education into the process as well.

In order to participate in ACT screening, patients underwent financial eligibility verification to determine that they lived at or below 235% of the Federal Poverty Level and had no health insurance coverage of any kind. No data on individual patient experiences or treatment course was collected for the ACT project and all data and results are de-identified and reported in aggregate form.

Partner participants in the project included Chatham County Health Department (care navigation and fiscal agent, Chatham CAN (care linkage and tracking software), Community Health Mission, St. Mary's Health Center, J.C.Lewis Primary Care Center, Good Samaritan (CCSNPC primary care providers), the CCSNPC Executive Director and local gastroenterologists. The project used the existing network of five primary care clinics serving the uninsured in the Chatham County Safety Net Planning Council (CCSNPC), the existing CCSNPC care navigator and utilized the specialty care referral system developed by an existing CCSNPC grant-funded project, Chatham CAN (Creating Access Now). ACT has prepared both the care providers and their uninsured patients for colorectal cancer education and screening initiatives which may be implemented in the future. The referral system of ready, cooperative providers is in place, a tracking and reporting system will has been developed and the mechanism to engage patients in the screening process through education and self-assessment is tried and true.

SEGCA arranged for a regional academic center to review data and outcomes of this and other related regional projects. The data forms are included as Appendix 1.

TIMELINE:

The first quarter of the grant period was one of organization and engagement. The pilot of the patient assessment and referral process was arranged through Community Health Mission, Volunteers in Medicine Clinic in Savannah, GA and part of the CCSNPC network of providers. A retired gastroenterologist who volunteers at the clinic agreed to evaluate patients for colonoscopies, advise CCSNPC in developing the workflow and be the liaison to the private gastroenterologists performing the colonoscopies. The staff was briefed on the project,

introduced to the care navigator and instructed as to the forms required for reporting to SEGCA. The ACT care navigator developed a risk assessment form based on the Harvard Risk Assessment ¹ which can be given to a patient and/or included in a patient's medical record.

The ACT care navigator worked closely with the Project Director for Chatham CAN, the CCSNPC specialty referral and tracking project, to integrate physicians into the Chatham CAN database. In August, the care navigator and Chatham CAN project director attended two days of tracking software database training. In September, the care navigator attended two days of Colon Cancer Education training presented by Morehouse University Medical School.

The ACT care navigator, Project Director for Chatham CAN and the Executive Director of CCSNPC approached two gastroenterology groups in town to arrange the colonoscopies. One group, Gastroenterology Consultants of Savannah, formally agreed to provide colonoscopies and participate in the ACT project. The first one was performed on September 25, 2009. Lo Cost Pharmacy agreed to bill CCSNPC monthly for the bowel prep kits used by the patients getting colonoscopies.

The ACT care navigator and the Executive Director of CCSNPC also met with social workers at Savannah hospitals to plan the process of linking patients who have polyps positive for colon cancer to any aid or financial assistance which might be available and to begin to understand the process of getting surgical and follow up care donated. They also met with the genetics team to clarify the patient eligibility for referral to the MHUMC genetics counseling project, an additional regional colorectal cancer outreach project supported by SEGCA.

In the second quarter of the grant period, the process of engaging patients, educating them and evaluating them for colorectal cancer screening was refined working closely with the gastroenterologists.

The project gained momentum during the third quarter. The following workflow was developed for transitioning patients from engagement, through risk assessment and education to screening. The project was expanded to include additional CCSNPC clinics, St. Mary's Health Center and J. C. Lewis Primary Healthcare Center.

ACT Work Flow:

ACT Care navigator

- collects demographics
- verifies uninsured/235% of poverty status
- administers Harvard Risk Assessment²
- refers patient to Primary Care Provider for evaluation

Primary Care Provider

- evaluates patient
- if FOBT is recommended, educates patient on proper collection and return of sample
- FOBT's are read by staff at Primary Care Provider
- Primary Care Provider selects one of the following tracks
- Refers patient back to ACT care navigator if colonoscopy is offered

Risk level **low** __ prevention education and/or FOBT

Risk level **medium and high** __ FOBT

¹ http://www.diseaseriskindex.harvard.edu/update/hccpquiz.pl?lang=english&func=home&page=cancer_index

² http://www.diseaseriskindex.harvard.edu/update/hccpquiz.pl?lang=english&func=home&page=cancer_index

Risk level **medium**, FOBT negative __ prevention education, F/U annually
Risk level **medium**, FOBT positive __ confirm positive FOBT __ offer colonoscopy
Risk level **high**, FOBT negative __ offer colonoscopy
Risk level **high**, FOBT positive __ offer colonoscopy

ACT Care navigator

- arranges colonoscopy
- obtains prep kit for patient
- verifies that patient keeps appointment
- obtains results of colonoscopy
- arranges additional referrals and testing for positive results
- ensures patient referral back to PCP for follow-up
- receives, approves and verifies payment of invoices to pharmacy and physicians

Chatham CAN project manager

- tracks patients receiving colonoscopies in database
- tracks additional referrals, procedures and tests received
- tracks care provided through ACT

In addition, in the third quarter, Chatham County Safety Net Planning Council (CCSNPC) restructured the ACT grant deliverables beginning March 1, 2010 in order to concentrate efforts on education and screening and to perform the maximum number of colonoscopies possible before the end of the grant period, June 30, 2010. This was due to increased number of patients agreeing to risk assessments and the number of patients that providers referred to the program for screening.

In order to accomplish this, CCSNPC took the following steps beginning March 1, 2010:

- Reassigned the large scale risk assessment project from a student run entity to a care navigator function.
- Eliminated the DVD project from our deliverables. Since our original grant proposal was approved, other funding had been received by SEGCA to produce a teaching DVD on behalf of the region.

In the fourth quarter, work was concentrated on educating patients at the CCSNPC clinics and arranging colonoscopies as requested by Primary Care Providers. Evaluation of the project was also performed at this time.

Throughout the grant period, patients experiences needs for additional care following or as a result of screening. The care navigator and Chatham CAN project manager arranged for this care using the CCSNPC network of providers and other community resources. Patient assistance funds in the ACT budget were used to pay for such needs above what was supplied at no cost by area providers.

DELIVERABLES:

ACT provided colorectal cancer health education and screening to uninsured patients at the CCSNPC provider clinics using the Harvard Risk Index³. Patients at moderate to high risk received a FOBT (Fecal Occult Blood Test) at no charge. Those patients with a positive FOBT

³ http://www.diseaseriskindex.harvard.edu/update/hccpquiz.pl?lang=english&func=home&page=cancer_index

or who are at high risk with a negative FOBT were evaluated by their health care provider for referral for a colonoscopy at no charge to the patient.

METRICS:

SEGCA Integrative Project Forms – 444 Submitted

These forms contain data which is being tracked by an independent academic reviewer at Georgia Southern University.

FOBT's:

Number of participants received test – 183 Number Returned – 82
 Results: Positive – 12 Negative – 70

Colonoscopies: (Grant Deliverable is 29)

Referrals – 35 (Cancelled – 3, Declined – 2)

Performed – 29 (CHM – 15, SMHC – 5, JCL – 5, OTHER – 4)

1 additional colonoscopy scheduled and pending at the time of this report

Pathology Results: Positive – 3 Negative – 25

Results pending on 2 colonoscopies at the time of this report

Colonoscopies billed at higher rate for polyp removal (\$961) - 9

Colonoscopies billed at lower rate without polyp removal (\$720) – 20

One colonoscopy pending

Bowel Prep Kits provided – 29 (1 pending)

Deliverables	September 30, 2009 1 st Quarter	December 31, 2009 2 nd Quarter	March 30, 2010 3 rd Quarter	June 30, 2010 4 th Quarter
Colonoscopies 29*		8	13	30 (1 pending at the time of this report)
Patients screened with Harvard Risk Assessment- 800**		155	236	575**
FOBT's -300***		72	98	183***
DVD****			Cancelled	Cancelled

* Original number 25, now increased to 29 after budget revision approved 2/24/2010: 30 actual

** Risk assessments performed by AASU students cancelled. Risk assessments will be performed by Care navigator in three additional CCSNPC clinics beginning March 16, 2010, April 1, 2010 and May 1, 2010 respectively and in community as arranged. Original goal of 800 assessments was not achievable.

*** FOBT's distributed previously estimated to increase with addition of three more clinics where risk assessments take place. However, new clinics had access to FOBT's and ACT did not have to provide these as expected. Tracking of FOBT's provided at clinic sites was not tracked as the provision of these tests to patients was something learned after the fact.

**** Cancelled and additional Colonoscopies performed in budget revision approved 2/24/2010.

RESULTS OF COLONOSCOPIES:

With one colonoscopy pending at the time of this report, 9 have been performed with polyp removal and 20 without. Rectal masses which were biopsied were not classified as or billed as polyps. The summary of each colonoscopy by date it was performed is pictured in the table below. A common issue (12/29 or 41%) was poor quality of the bowel prep. This makes it more difficult for the Gastroenterologists to perform the colonoscopy and have a clear view of the bowel mucosa.

ACT Colonoscopies

Date	Prep Quality	Polyps/Specimens	Biopsy	Benign/Malignant
7/6/2010	Pending	Pending	Pending	pending
6/25/2010	Poor	1	0	pending
6/22/2010	Poor	3	0	Tubular Adenoma
6/22/2010	Good	0	0	
6/18/2010	Good	0	0	
6/9/2010	Good	0	0	
6/8/2010	Good	1	0	Benign
6/3/2010	Good	3	0	Tubular Adenoma
5/18/2010	Poor	0	1	Dysplasia
5/17/2010	Poor	1	0	Benign
5/12/2010	Good	0	0	
5/10/2010	Good	0	0	
5/10/2010	Good	0	0	
5/7/2010	Good	7	Rectal Mass	Adenocarcinoma (Rectal Mass)
4/1/2010	Poor	0	0	
3/30/2010	Good	2	0	Adenoma
3/24/2010	Good	3	0	Adenocarcinoma (1 polyp)
3/2/2010	Good	2	0	Tubular Adenoma
2/18/10	Poor	2	0	Benign
2/17/2010	Poor	0	0	
2/16/2010	Good	0	1	Benign
1/27/2010	Poor	3	0	Tubular Adenoma
12/28/2009	Poor	0	0	
12/28/2009	Poor	0	1	Benign
12/16/2009	Poor	5	0	Benign
12/10/2009	Good	5	0	Tubular Adenoma
11/24/2009	Good	5	0	Benign
11/19/2009	Poor	0	0	
10/28/2009	Good	Multiple	0	Tubular Adenoma
10/22/2009	Good	1	0	Focal Adenoma
9/25/2009	Good	1	Rectal Mass	Adenocarcinoma

Green= colonoscopies billed at higher rate Yellow= diagnosis of colorectal cancer

ACT identified one patient with early stage colon cancer. Two patients were found to have invasive rectal cancer. Their care was arranged through the two regional cancer centers, Anderson Cancer Center at Memorial Health University Medical Center and the Lewis Cancer Pavilion at St. Josephs/Candler Health Systems and local private physicians.

RESULTS OF COMMUNITY RISK ASSESSMENTS:

A total of 575 individuals received colon cancer education and agreed to participate in the Harvard Risk Assessment. Demographic data as to age, gender, race, ethnicity and zip code of residence was recorded along with the risk level from the Harvard Assessment, coded in increments 1 through 7 from lowest to highest risk. Risk Level 1, the lowest, corresponds to the lowest level on the Harvard Risk assessment coded as blue. Risk level 4, corresponds to medium risk or green on the Harvard Risk Assessment. Risk level 7, corresponds to the highest risk on the Harvard Risk Assessment coded as red. The demographic breakdown of the subjects and the associated average risk is summarized in Appendix 2.

The average risk of the subjects was 3.98. The average age was 50.24 years. There were no clear trends of increased or decreased risk which could be observed. The risk in male African-Americans and males ages 61-70 years was slightly higher than the average risk. The lowest average risk was in the Hispanic group, but this group represented only 1.6% of the study group with only 9 subjects interviewed. The age group 21-30 also had a slightly higher risk than the average. These results may be skewed by the fact that a subject this age was interviewed usually as part of a family with a family history of colorectal cancer.

PROJECT COSTS:

The total estimated cost of the ACT project was \$109,201.27. Of this total, \$60,867.94 or 55.7% was in-kind donations of CCSNPC, Chatham CAN and CCHD staff, supplies, tracking software and physician services. The remainder of the budget came from Southeast Georgia Cancer Alliance grant funding totaling \$48,333.33. Of the SECGA funds, 49% was used to pay for the 30 colonoscopies performed. The balance supported administration, care navigation, patient assistance, tracking software support, fecal occult blood tests and bowel prep kits.

Average costs for a colonoscopy in the 31401 zipcode⁴ are \$1284 for a colonoscopy without polyp removal and \$1524.50 for a colonoscopy with polyp removal. Gastroenterologists were reimbursed at approximately 60% of this rate (range 56-63%). The reimbursed amount included pathology services.

The following information was supplied by Gerald Ledlow of Georgia Southern University, the academic reviewer of ACT and similar projects supported by SEGCA in Southeast Georgia:

“Most experts note that \$300,000 (\$311,000) is the cost avoidance for diagnosing colorectal cancer at an early stage (polyp, polyp negative, polyp positive, polyp stage 1 positive) as costs of care at stage 4 are avoided; however, this cost avoidance estimate does not add the cost of care for extended life (approximately 13.8 years from the literature) back into the cost avoidance estimate, thus \$179,680.82 is a truer and more conservative cost avoidance estimate.”

⁴ <https://www.mymedicalcosts.com>

ACT identified one patient with early stage colon cancer. Using the above conservative estimate and the total estimated cost of the project including in-kind contributions, ACT represents a cost savings of \$70,479.55 (\$179,680.82 - \$109,201.27) based on just one patient experience.

DISCUSSION:

ACT successfully provided one-on-one colorectal cancer education and risk assessments to 575 individuals. Fecal Occult Blood Tests were distributed to over 183 individuals. The exact number of Fecal Occult Blood Tests is unknown as clinics began distributing them to patients independent of the ACT project in the last 2 _ months of the project.

Because of the existing network of CCSNPC providers and the existing care navigation system, ACT was extremely successful in engaging local gastroenterologists to participate in ACT, develop a project workflow and engage both CCSNPC providers and patients in the project. Of the patients whose primary care provider recommended a colonoscopy, 30 out of 35 (86%) successfully completed the procedure. The workflow ACT developed includes the close involvement of the primary care provider in counseling the patient, a key to success in engaging patients.

Multiple patients needed additional care as a result of screening. Examples include consultation with a gastroenterologist (for other GI conditions), other endoscopic procedures, laboratory tests, radiological studies, pathology reports, preoperative screening such as stress tests, surgical consults, surgery, hospitalization, chemotherapy consults and treatment and radiation therapy consults and treatment. Social services accompanying this after care included transportation and lodging. The Chatham CAN project director and ACT care navigator were able to arrange this care within the existing CCSNPC network of providers at minimal costs to the patient and for under \$1500 total in SEGCA funding. Partner participants in arranging this care included Memorial University Medical Center, St. Joseph's Candler Health System, Georgia Cancer State Aid, the American Cancer Society, private gastroenterologists, oncologists, radiologists, pathologists and surgeons and local laboratories.

Although this care was not a part of the ACT project, any screening project must plan for and have the ability to arrange such next steps for patients. ACT's success in doing so is due to the existing collaboration of providers through the Chatham County Safety Net Planning Council.

In future projects, CCSNPC will concentrate on better education as to the proper bowel preparation prior to colonoscopies, better return rates for fecal occult blood tests and better methods for tracking the fecal occult blood tests distributed by participating primary care clinics. Also, although no clear differences in risk of colorectal cancer were noted among the demographic groups evaluated in the community risk assessment projects, CCSNPC will continue to monitor overall risk with particular attention to African American male, 61-70 year old males and individuals of any age with a family history of colorectal cancer.

The workflow developed by ACT and the linkages to providers have established the basis for this project to expand to regional primary care providers who care for the uninsured and to additional local gastroenterologists.

CCSNPC is grateful for support from SEGCA and the GCC which has allowed us to conduct this project on behalf of our patients. At least one life has been saved from early detection of colorectal cancer and additional years added to other lives by connecting patients to cancer

care. This project has provided experience and lessons learned in promoting cancer education and screening in the uninsured population in our region. Through continued efforts to educate patients and encourage screening and early detection, CCSNPC is committed to address cancer health disparities and improve cancer care in our region.

On behalf of Chatham County Safety Net Planning Council, Paula Reynolds, the Executive Director, extends special thanks to these individuals for their important contributions to the success of ACT:

- Dr. Jim Repella, President, Southeast Georgia Cancer Alliance
- Debra Abercrombie, Project Director, Chatham CAN
- Natalie Walker, Care Navigator, Chatham County Health Department
- Gastroenterology Consultants of Savannah:
 - Gregory D. Borak MD
 - Branden S. Hunter MD
 - Natasha Muckova MD
- Community Health Mission:
 - Ronald Fagin MD
 - Miriam Rittmeyer PhD, MPH
 - Carolyn Walker
 - Jamey Johnson
- Good Samaritan Clinic:
 - Sheri Estes
 - Greta Thostrup
- St. Mary's Health Center:
 - Stephanie Alston
 - Theresa Walker
- J. C. Lewis Health Center:
 - Rena Douse
 - Katanna Harden
- Endoscopy Center of Coastal Georgia:
 - Judy O'Neal
 - Kristen Brown
- Laboratory Corporation of America:
 - Jo Weaver
- Savannah Pathology Services
- Chatham Pathology Associates:
 - Paul J. Drwiega, MD
- St. Joseph's/Candler Hospital
- Memorial University Medical Center
- Eastside Concerned Citizens:
 - Tammie Kennedy
- LoCost Pharmacy

APPENDIX 1: SEGCA INTEGRATIVE PROJECT FORM FOR GEORGIA SOUTHERN UNIVERSITY

SEGCA INTEGRATIVE PROJECT FY 2010

Client Identification #: _____ Today's Date: ____/____/____ Project: **Memorial** **Liberty** **Chatham**
Sfty Net

Client Demographic Information *What is the Client's?*

Age (years old): _____ Gender: Male Female Ethnicity: Hispanic/Latino
 Birth Date: _____ White, not Hispanic
 _____ Asian
 _____ Native
 _____ Pacific
 _____ Multiple Ethnicities

Current Health Insurance Coverage: No Insurance
 American
 Medicare
 Islander
 Medicaid
 Employer-Based Commercial
Status: Private Pay Commercial
 Tricare/Federal/VA
 Other

Date Last Medical Examination:
 Date: _____

Month Day, Year

Location of Residence: County: _____
 Zip Code: _____

Employment
 Employed Full Time
 Employed Part Time
 Not Employed
Marital

Yearly Family Income (All Sources): Less than \$10,000
 \$10,000 to \$19,999
 Divorced
 \$20,000 to \$29,999
 \$30,000 to \$39,999
 \$40,000 to \$49,999
 \$50,000 to \$59,999
 \$60,000 to \$69,999
 \$70,000 to \$79,999
 \$80,000 or more

Education Completed: 8th Grade or less
 9th Grade
 10th Grade
 11th Grade
 High School Graduate
 Some College
 Technical College
 Bachelors Degree
 Graduate Degree

Household Size: (Client Only) 1
 Client +) 2
 3
 4
 5
 6
 7
 8+

Marital Married
 Separated
 Never Married
 Living Together
 Widowed/Widower

Project Services: Mark all Completed	Outcomes/Results:
Colorectal Cancer Education <input type="checkbox"/>	Harvard Assessment: <input type="checkbox"/> Low <input type="checkbox"/> Average <input type="checkbox"/> High
Genetic Counseling <input type="checkbox"/>	Genetic Testing: Positive <input type="checkbox"/> Negative <input type="checkbox"/>
FOBT Screen Performed <input type="checkbox"/>	FOBT: Positive <input type="checkbox"/> Negative <input type="checkbox"/>
Colonoscopy Performed <input type="checkbox"/>	Colonoscopy: Polyp(s) Removed <input type="checkbox"/> No Polyps <input type="checkbox"/>
Referred to: Memorial <input type="checkbox"/> Liberty <input type="checkbox"/> Chatham Sfty Net <input type="checkbox"/>	Colonoscopy: # Polyps _____
Referred to Invasive Surgery <input type="checkbox"/>	Colonoscopy: Positive <input type="checkbox"/>
Stage _____ Negative	Next Colonoscopy (Date): _____
Other (write in): _____	

APPENDIX 2: COMMUNITY RISK AND DEMOGRAPHICS

ACT Community Risk Assessment			
	N	% of Study Group	Average Risk
<u>Overall Assessment</u>	575	100.0%	3.98
<u>Age</u>			
Age Range 20-72 years			
Average Age- 50.24 yrs			
Demographic categories with N > 6 included below:			
<u>Age Range (in Years)</u>			
21-30	15	2.6%	4.27
31-40	63	11.0%	3.89
41-50	193	33.6%	3.99
51-60	235	40.9%	4.03
61-70	67	11.7%	3.78
<u>Gender</u>			
Female	403	70.1%	3.92
Male	172	29.9%	4.12
<u>Ethnicity</u>			
Hispanic	9	1.6%	2.89
Non-hispanic	566	98.4%	4.00
<u>Race</u>			
Asian	7	1.2%	3.29
African American	352	61.0%	4.07
White	208	36.2%	3.88
Other	9	1.6%	3.22
<u>Zip Code</u>			
Zip Codes with N >9 included below			
31401	76	13.2%	4.07
31404	99	17.2%	4.05

31405	90	15.7%	4.07
31406	79	13.7%	3.90
31408	22	3.8%	3.57
31410	13	2.3%	3.71
31415	39	6.8%	3.90
31419	74	12.9%	3.97
<u>Gender/Race</u>			
Female			
African American	257	44.7%	4.02
Other	8	1.2%	3.00
White	134	23.3%	3.81
Male			
African American	94	16.3%	4.22
White	74	12.9%	4.03
<u>Gender/Age Group</u>			
Female			
41-50	138	24.0%	3.96
51-60	157	27.3%	4.00
61-70	51	8.9%	3.63
Male			
41-50	45	7.8%	4.05
51-60	78	13.6%	4.09
61-70	16	27.8%	4.25