

Overview

Compared to Texas as a whole, East Texas has higher incidence and mortality rates from CRC. CRC screening rates are lowest among the uninsured. East Texas is highly rural and low-income, with many uninsured. We initiated a CRC screening program in East Texas, focusing on the un- and under-insured.

Colorectal cancer (CRC) screening saves lives, yet screening rates among underserved populations, such as the uninsured and minorities, are low. CRC screening in asymptomatic patients can reduce the incidence and mortality of CRC as it:

- 1) Prevents CRC by polypectomy,
- 2) Finds early-stage cancers, leading to treatment with a high chance for long term survival, and
- 3) Identifies families at increased risk.

Our goals included:

- 1) Increase CRC screening education and access by providing CRC screening risk-benefit education to individuals in the catchment area.
- 2) Increase the rate of CRC screening services by at least 10%, by tailoring support for CRC screening to the individual's intention.

Methods

The CRC screening project, funded by the Cancer Prevention Institute of Texas (CPRIT), encompasses 19 counties in East Texas. The catchment area is primarily rural, with limited access to public transportation.

- Community based and a clinical focus.
- The CPRIT project leveraged the work of the Texas 1115 Medicaid Waiver Delivery System Reform Incentive Payment (DSRIP) by providing a funding source for the screens.
- We established multiple community partnerships to increase the number of individuals educated regarding the benefits of screening.
- The American Cancer Society (ACS) is assisting us by providing strategic planning guidance, provider and CHW education to optimize client and provider interventions. The ACS has trained CPRIT and clinical staff.

Intervention

The University of Texas Health Science Center at Tyler (UTHSCT) uses Colonoscopy and the Fecal Immunochemical Testing (FIT) for this project. The FIT is more sensitive and specific than Hemoccult ®, and does not require the individual to be on dietary or medication restrictions.

Our strategy involved reaching out to individuals to make them aware of the need to undergo CRC screening, educating them about their screening options, performing the screening methodology of choice (FIT or colonoscopy), providing access to treatment for CRC, and providing follow-up. Usually the FIT test was provided to the participant by the local facility where he/she was recruited; otherwise it was mailed.

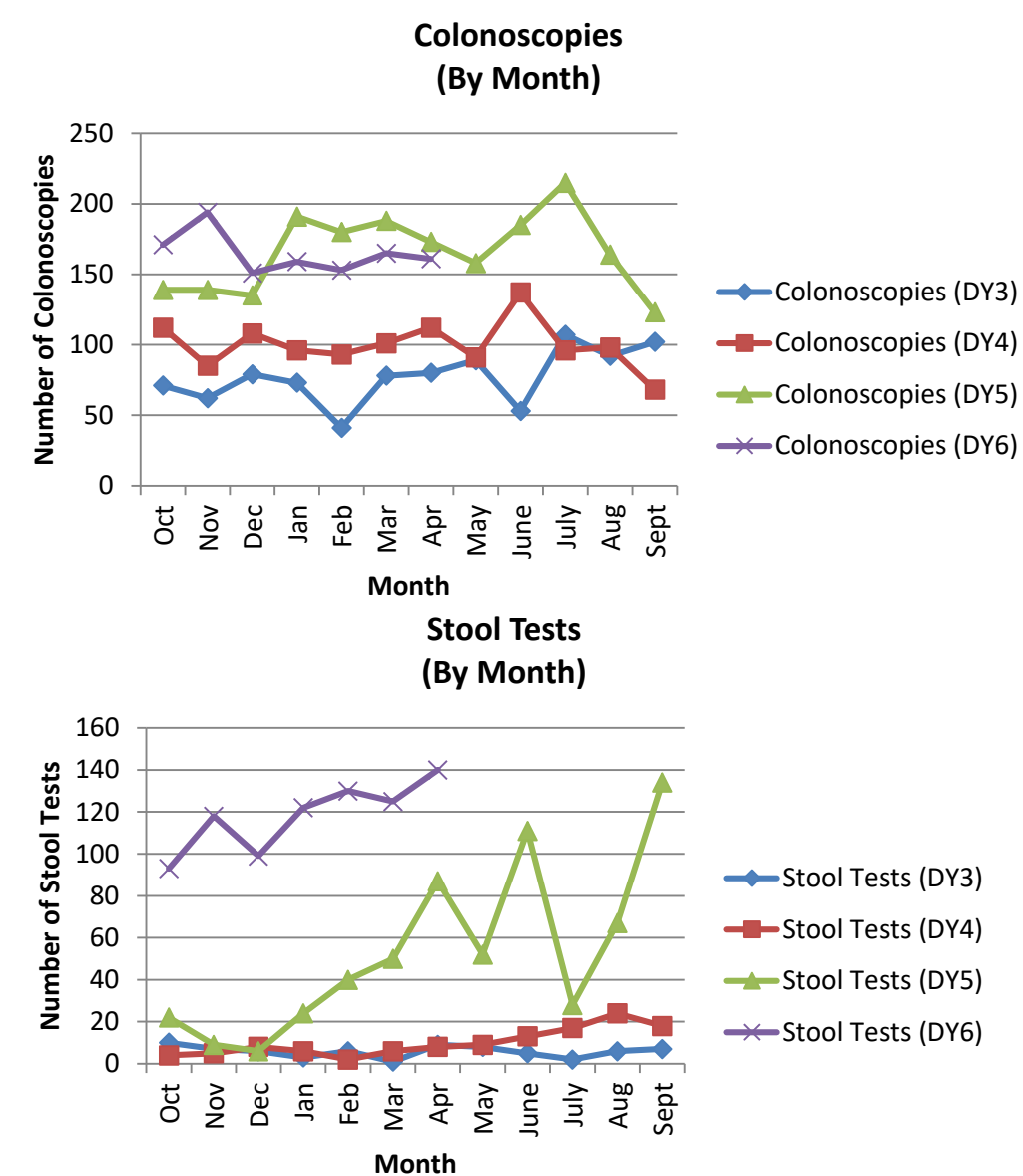
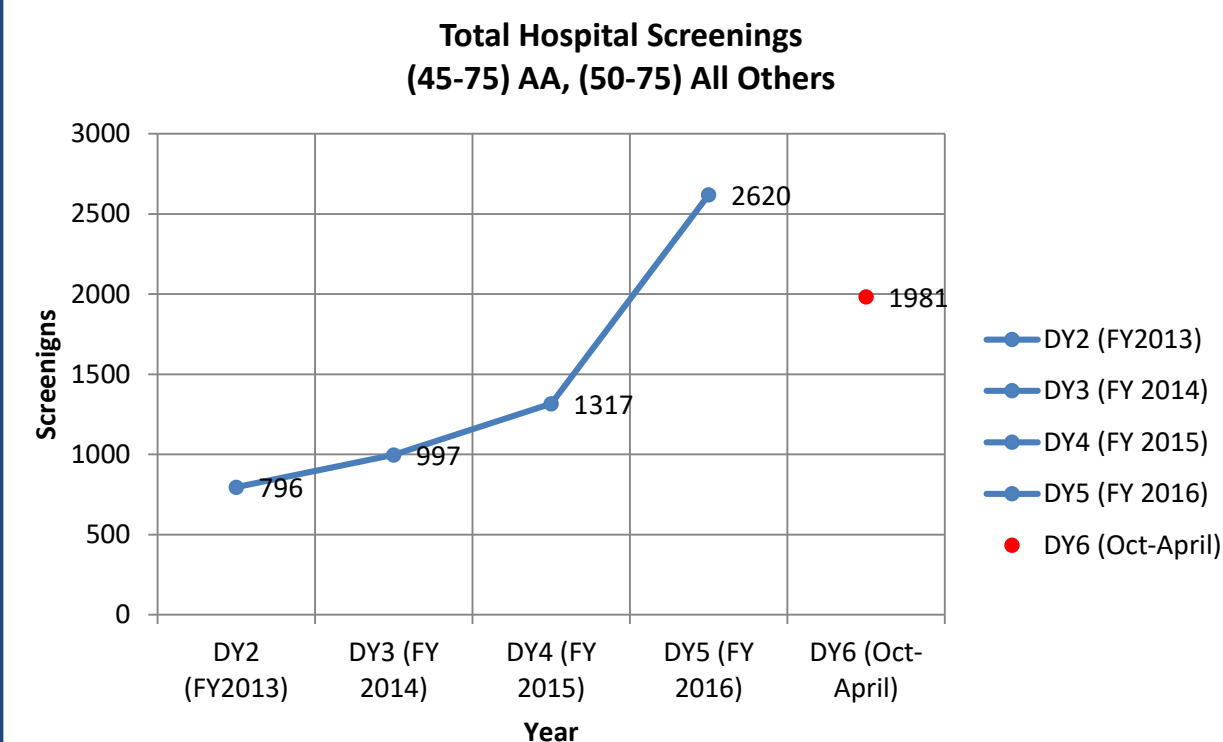
Once eligible for CRC screening:

- Participants with a negative FIT repeated the test in 12 months
- Participants with a positive FIT were told it could indicate the presence of blood in their stool and that they should undergo colonoscopy.
- If colonoscopy was initially selected, our goal was to have the person scheduled for the procedure and contacted by the nurse navigator within 5-10 days of their request.
- Participants with a colonoscopic biopsy demonstrating no/benign polyps were scheduled for follow-up. Biopsies demonstrating a precancerous polyp or cancer were scheduled for clinical follow-up and intervention.

For individuals with CRC, precancerous or malignant lesions, the nurse navigator consulted staff gastroenterologists to insure that the individual was scheduled for treatment as appropriate. The navigator also verified that a follow-up colonoscopy was scheduled within one year per national guidelines.

Results

For Year 1 (DY4), 1,337 screenings were performed as part of our CPRIT grant. For the 2nd funding year 2,417 screenings were performed. This is an increase of 81%. A disproportionate number of our participants have opted for a colonoscopic examination versus FIT.



During Year Two 1,080 (44.7%) did not have insurance, or were underinsured. CPRIT funded these screenings. Females comprised 70.8% of clients. The mean age for these individuals was 57.0 years. Those who claimed to have a family history of colon cancer amounted to 109 (10.1%). Also 19.8% (101/510) of those who were uninsured reported having a previous screening.

Of those who underwent colonoscopies, nearly half had some kind of abnormality (238/510 or 46.6%), 34.9% (n=178) had adenomas, and 0.8% had malignancies (n=5).

We see that females are more likely to have had a normal colonoscopy compared to males; therefore once again, males are more at risk for uncovering adenomas during colonoscopy screening.

Figure 4: Counts of uninsured colonoscopy outcomes, normal vs. adenoma, Year Two

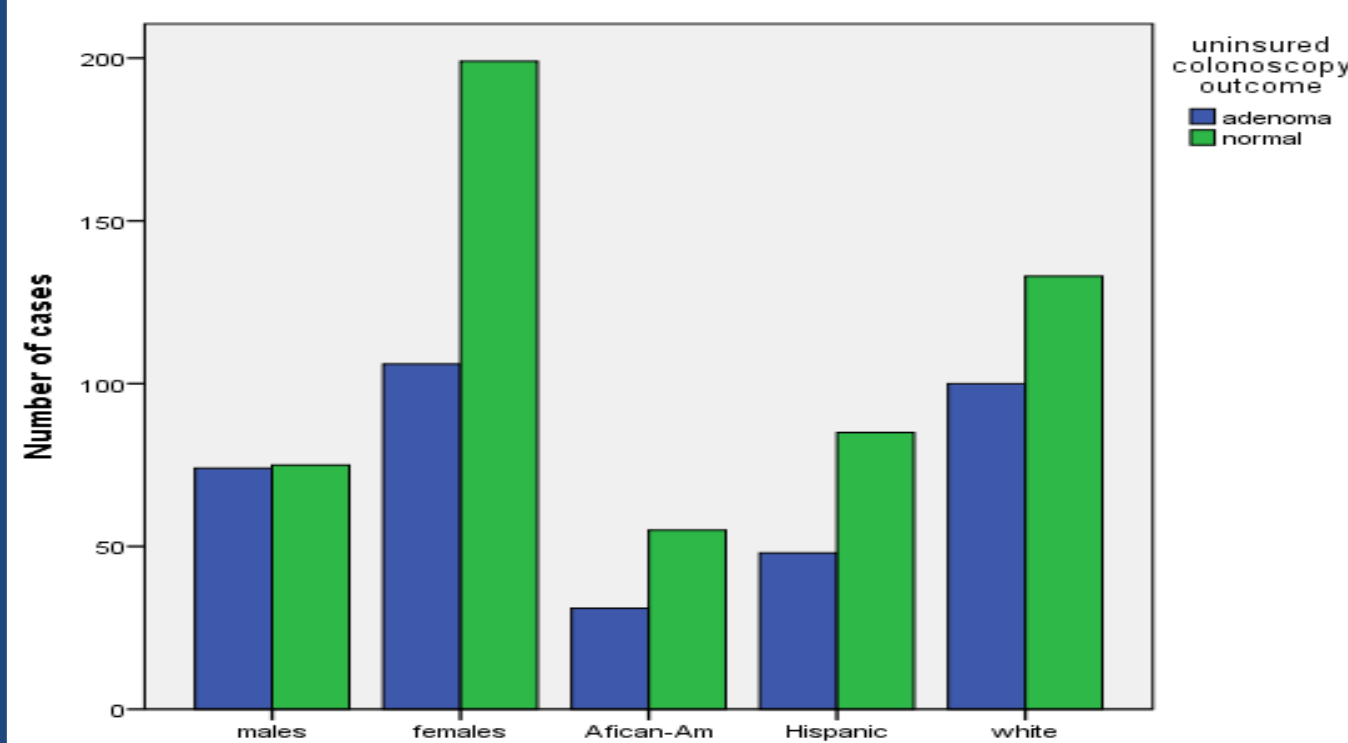


Figure 5: Counts of Abnormality Types- Uninsured clients, Year Two

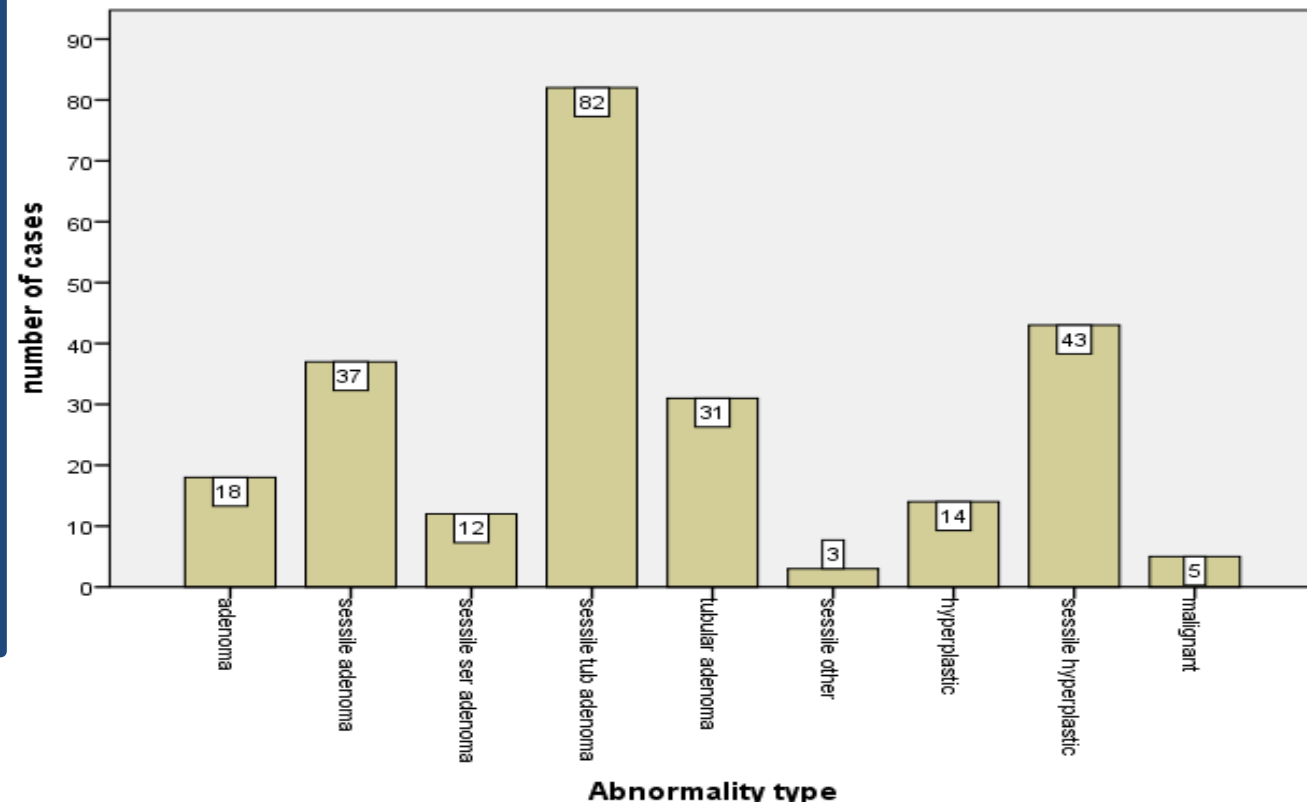


Table 2: Uninsured number (%) by Screening method

	Colonoscopy only	FIT only	Total
Age (average)	57.0	57.0	-
Sex			
Male	165 (52.7)	148 (47.3)	313
Female	345 (45.5)	413 (54.5)	758
Race			
White	268 (47.6)	295 (52.4)	563
African-American	95 (49.2)	98 (50.8)	193
Hispanic	145 (46.9)	164 (53.1)	309

Table 3: Uninsured cases (%) showing Demographic differences between Normal and Abnormal Colonoscopy, Year Two

	Normal Colonoscopy (n=272)	Abnormal (n=238)
Age ^a (average)	56.9	57.1
Sex ^b		
Male	75 (45.5)	90 (54.5)*
Female	197 (57.1)	148 (42.9)
Race/ethnicity ^b		
White	132 (49.3)	136 (50.7)
African-American	54 (56.8)	41 (43.2)
Hispanic	85 (58.6)	60 (41.4)

**p<.05; a= T test, b=Chi Square

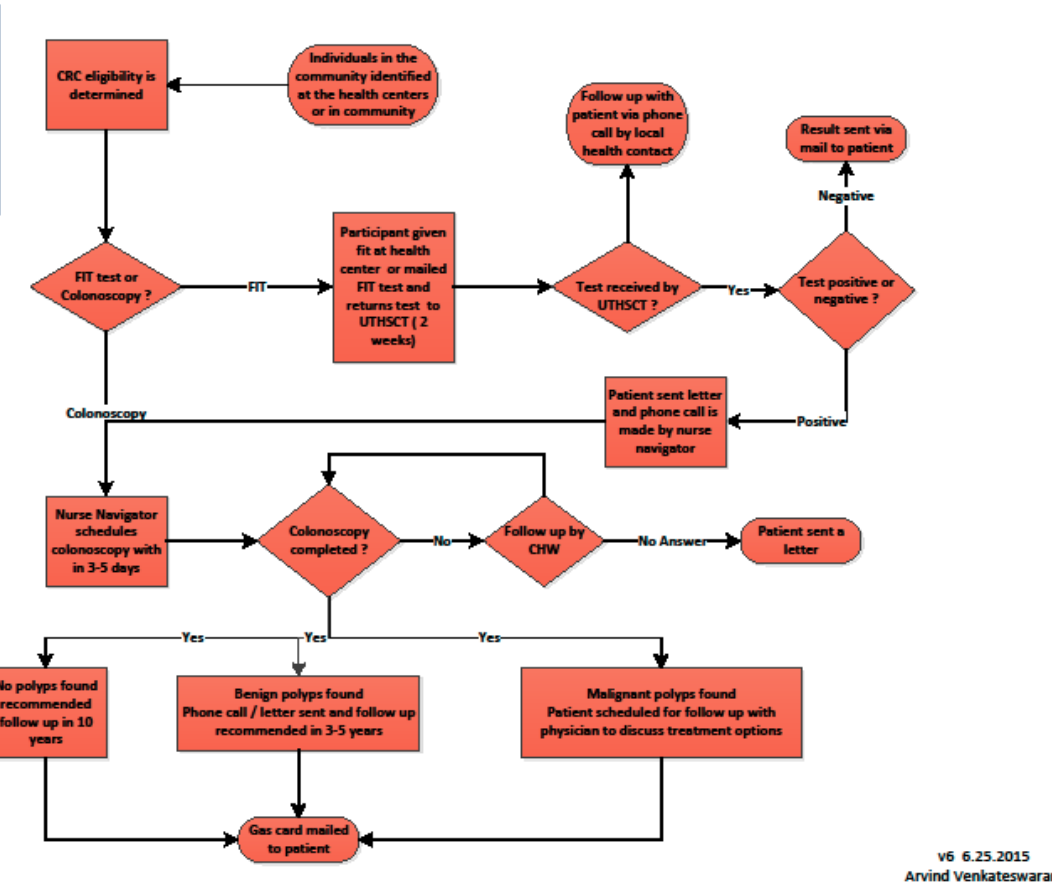


Table 1: Cases (%) showing Demographic differences by CPRIT year

	Year One	Year Two
Age ^a (average)	61.3	59.7*
Sex ^b		
Male	532 (39.8)	892 (36.9)
Female	787 (58.9)	1,525 (63.1)*
Ethnicity ^b		
African American	352 (26.3)	569 (23.5)
Hispanic	46 (3.4)	352 (14.6)*
White	921 (68.9)	1,480 (61.2)
Insurance status ^b		
Insured	1,161 (86.8)	1,337 (55.3)
Uninsured	176 (13.2)	1,080 (44.7)*
Type		
Colonoscopy	1227	1748
FIT	110	648*
Total	1337	2417

**p<.05; a= T test, b=Chi Square

Next Steps

The high adenoma detection rate suggests we are screening a population at increased risk of CRC. We plan to study to:

- 1) See if the removal of adenomatous polyps among our participants will decrease their risk of developing CRC, and
- 2) See if detection of CRC in the screened individuals will improve their chance of survival.

We believe that our approach to patient recruitment, which includes population outreach and clinician participation, combined with strategies to overcome barriers to participation such as provision of transportation to participate in CRC screening and/or treatment could be implemented by other health care systems in Texas and beyond which are located in areas of relatively low population density. The long-standing nature of these partnerships and stability of these collaborations will lend to the future sustainability of promoting CRC screening in East Texas.

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