



Healthy Body - Healthy Soul



Colorectal Cancer Awareness



Department of Health & Kinesiology

FINAL GRANT REPORT

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General Grant Summary

According to the Centers for Disease Control and Prevention, colorectal cancer is the third leading cause of death in men and women. Recent trends have shown a decline in colorectal cancer deaths throughout the United States, with the exception of the state of Mississippi. Because Mississippi is the only state that has not seen a decline in colon cancer, the *Cancer Beat It!* Grant provided a unique opportunity for at-risk members of the northeast Mississippi community to learn about colorectal cancer risk factors and the ways in which a nutritious diet, increased levels of physical activity, and adherence to the U.S. Preventive Service Task Force's screening guidelines can all aid in the prevention of colorectal cancer.

The colorectal cancer awareness program was conducted by a team of health educators at five local churches in the Golden Triangle region. The program's outreach activities were both theory-driven and spiritually-based, operating under the theme "Healthy Body – Healthy Soul." The program utilized the Health Belief Model to discuss strategies for colon cancer prevention by having individual experts in health education, nutrition, and physical activity address community members in their church, which provided an ideal setting for establishing a vital connection between physical health and spiritual health. Each intervention sought to increase awareness of colorectal cancer risk factors, screening guidelines, and the impact of diet and exercise on health. In order to evaluate the effectiveness of each intervention, a matched pre and post test design was used.

The project's main goal was to increase awareness about primary and secondary prevention of colon cancer among the residents of northeast Mississippi, particularly underserved minorities. In addition, the project also aimed to increase awareness about the Mississippi Partnership for Comprehensive Cancer Control (MP3C) coalition and its mission in an effort to increase membership and participation in the coalition. A total of 139 people were exposed to the colon cancer risk and prevention information presented through this grant-funded program.

The pre-post test results in combination with the positive testimonials from the community members that followed each event deem this colorectal cancer awareness program a success. Members of each church felt they were able to understand the risk factors, make the connection between being healthy physically and spiritually, and, as a community, they expressed the feeling of empowerment and believed the simple prevention strategies provided by the grant team were feasible.

Event 1 of 5 Description: Woodland Baptist Church

Event Location: Woodland Baptist Church, Columbus, MS

Date: 4/21/2013 at 5:30 PM

Location Background:

Woodland Baptist Church is a Caucasian church located in Columbus, MS. Brother Shelby Hazzard has served as senior pastor since January 2012.

Summary:

The *Cancer Beat It!* Educational session provided to the congregation of Woodland Baptist Church was the highest attended session during the duration of the program. Those in attendance were very welcoming to the *Cancer Beat It!* presenters and very eager to receive the information. Dr. Murphy opened the presentation by presenting the informed consent, stressing that individual participation was completely voluntary and that the individual had the right to discontinue participation at anytime during the session. Upon reading the informed consent, Dr. Murphy informed those in attendance that contact information would be made available to all, in the event that the individual would like more information on the program. Once the informed consent was verbalized, those in attendance were ask to take a short pretest, which would serve as the benchmark for formal evaluation. In addition to the pretest, those in attendance were provided a colorectal cancer fact sheet and a colorectal cancer risk factors sheet. Once completed, all pretest were collected and the presenters were introduced. The first presenter was Shobal Johnson, a graduate student at the Mississippi University for Women and the graduate research assistant aiding with the *Cancer Beat It!* Colorectal Cancer Grant. As this program was designed to be a “faith based” educational program, Shobal provided those in attendance with biblical scripture underlining the importance of leading a healthy life. In accordance to the colorectal cancer theme of the program, Shobal also provided the attendees with “population relevant data”, specific to those receiving the message, and addressed various screening options available. The second presenter, Palina Clark, served as the nutritional expert for the group. Palina emphasized the importance of diet in terms of colorectal cancer prevention. She also stressed that a diet rich in fruits and vegetables is significantly linked to, not only a decreased risk in colorectal cancer, but also a significant increase “overall health” and that low fat, high fruit and vegetable diets are positively correlated to a decreased probability of numerous adverse health conditions. Caleb Stratton,

the final presenter, served as the physical activity expert for the group. Caleb provided the participants with information that signified the importance of physical activity, in terms of primary prevention of colorectal cancer. Caleb stressed the importance of maintaining regular physical activity, in accordance to individual limitations, and detailed practical mechanics that everyone could adhere. Once all presentations were presented, those in attendance were asked to complete a posttest questionnaire on the material. Upon completion of the posttest, Ms. Cranston informed that all in attendance would be provided a free pedometer and walking log so that they may begin to practice primary prevention of colorectal cancer; in addition to this, those in attendance were provided the opportunity to join the MP3C. Once the session was complete, the pastor closed the service and dismissed those in attendance, with the presenters being available to answer questions at the front of the church.

Objectives:

The objectives of the session were to promote the MP3C and invite participants to join and to educate the participants on primary prevention of colorectal cancer methods.

Results:

The Woodland Baptist Church educational session included 41 attendees, of which 28 completed both a pretest and a posttest. Those in attendance were very welcoming of the group and very open to hear the information. Brother Shelby, the pastor of Woodland Baptist Church, expressed his thanks to the group for providing the information and indicated that he would be open to future programs focusing on cancer disparity.

Event 2 of 5 Description: Missionary Union Baptist Church

Event Location: Missionary Union Baptist Church, Columbus, MS

Date: 5/15/2013 at 6:00 PM

Location Background:

Missionary Union Baptist Church is an African American church located in Columbus, MS. and is the oldest African American church in Northeast Mississippi. Reverend Tony Montgomery has served as pastor since March 1997.

Summary:

The *Cancer Beat It!* Educational session provided to the congregation of Missionary Union Baptist Church was the second session presented by the *Cancer Beat It!* Group, and it was presented during the congregations regularly scheduled Wednesday night service. Those in attendance were very welcoming to the *Cancer Beat It!* presenters and very eager to receive the information. Dr. Murphy opened the presentation by presenting the informed consent, stressing that individual participation was completely voluntary and that the individual had the right to discontinue participation at anytime during the session. Upon reading the informed consent, Dr. Murphy informed those in attendance that contact information would be made available to all, in the event that the individual would like more information on the program. Once the informed consent was verbalized, those in attendance were ask to take a short pretest, which would serve as the benchmark for formal evaluation. In addition to the pretest, those in attendance were provided a colorectal cancer fact sheet and a colorectal cancer risk factors sheet. Once completed, all pretest were collected and the presenters were introduced. The first presenter was Shobal Johnson, a graduate student at the Mississippi University for Women and the graduate research assistant aiding with the *Cancer Beat It!* Colorectal Cancer Grant. As this program was designed to be a “faith based” educational program, Shobal provided those in attendance with biblical scripture underlining the importance of leading a healthy life. In accordance to the colorectal cancer theme of the program, Shobal also provided the attendees with “population relevant data”, specific to those receiving the message, and addressed various screening options available. The second presenter, Palina Clark, served as the nutritional expert for the group. Palina emphasized the importance of diet in terms of colorectal cancer prevention. She also stressed that a diet rich in fruits and vegetables is significantly linked to, not only a decreased risk in colorectal cancer, but also a significant

increase “overall health” and that low fat, high fruit and vegetable diets are positively correlated to a decreased probability of numerous adverse health conditions. Caleb Stratton, the final presenter, served as the physical activity expert for the group. Caleb provided the participants with information that signified the importance of physical activity, in terms of primary prevention of colorectal cancer. Caleb stressed the importance of maintaining regular physical activity, in accordance to individual limitations, and detailed practical mechanics that everyone could adhere. Once all presentations were presented, those in attendance were asked to complete a posttest questionnaire on the material. Upon completion of the posttest, Ms. Cranston informed that all in attendance would be provided a free pedometer and walking log so that they may begin to practice primary prevention of colorectal cancer; in addition to this, those in attendance were provided the opportunity to join the MP3C. Once the session was complete, the pastor closed the service and dismissed those in attendance, with the presenters being available to answer questions at the front of the church's fellowship hall.

Objectives:

The objectives of the session were to promote the MP3C and invite participants to join and to educate the participants on primary prevention of colorectal cancer methods.

Results:

The Missionary Union Baptist Church educational session included 25 attendees, of which 11 completed both a pretest and a posttest. Those in attendance were very welcoming of the group and very open to hear the information. Reverend Montgomery, the pastor of Missionary Union Baptist Church, was overly ecstatic that Missionary Union served as a location for an educational session and seeks to establish a rapport with MUW so that they may open their doors to future health related programs.

Event 3 of 5 Description: Lake Grove Baptist Church

Event Location: Lake Grove Baptist Church, Prairie, MS

Date: 5/22/2013 at 6pm

Location Background:

Lake Grove Baptist Church is an African American Church. The preacher has been ministering for several decades.

Summary:

The people in attendance were in good spirits and appeared happy to be at the Cancer Beat It information session. Each person in attendance that participated went through a multistep process. The audience was introduced to each of the speakers and the consent form was read. Afterwards, the attendees proceeded to take a pretest. It was explained to the attendees that after the information session a posttest would be given. During the information session, the audience listened to three different speakers. The first speaker relayed how colorectal cancer and spiritual concepts are related. The second speaker explained how nutritious food can defend against colorectal cancer or how the lack of nutritious food can play a development in the onset of colon cancer. The third speaker explained how physical activity not only defends against the onset of colon cancer but also against many other diseases. The attendees had the opportunity to ask the three speakers questions. After the three sessions and the question and answer period, the posttest was given. Afterwards, the attendees were thanked and dismissed. Light snacks were available after the presentation for the attendees. An informative board was also available with more information.

Objective:

To provide information about colorectal cancer and the prevention of colorectal cancer for the purpose of raising awareness about the risk factors of colorectal cancer and preventive measures to delay or prevent colon cancer.

Results:

There were 25 members of the Lake Grove Baptist Church that participated in the colorectal cancer educational session. The attendees found the program to be very informative

and were happy that they were able to be involved in such an event. Attendees expressed that they knew more about colorectal cancer after the session than they did previously.

Event 4 of 5 Description: Henry Clay Retirement Community

Event Location: The Henry Clay Retirement community, West Point, MS

Date: 5/24/2013 at 2:30pm

Location Background:

The Henry Clay Retirement Community is exactly what the name entails. “Located in downtown West Point, The Henry Clay Retirement Community provides a secure, comfortable environment while allowing residents to experience all the amenities of small town living.” Henry Clay is sometimes referred to as the “Family of Friends.”

Summary:

The people in attendance were in good spirits and were extremely happy to be present at the Cancer Beat It information session. The Henry Clay residents that participated went through a multistep process. The audience was introduced to each of the speakers and the consent form was read. Afterwards, the residents proceeded to take a pretest. It was explained to the residents that after the information session a posttest would be given. During the information session, the residents listened to three different speakers. The first speaker relayed how colorectal cancer and spiritual concepts are related. The second speaker explained how nutritious food can defend against colorectal cancer or how the lack of nutritious food can play a development in the onset of colon cancer. The third speaker explained how physical activity not only defends against the onset of colon cancer but also against many other diseases. The residents had the opportunity to ask the presenters questions. After the sessions and the question and answer period, the posttest was given. Afterwards, the residents were thanked for being in attendance. Light snacks were available after the presentation for the attendees. An informative board was also available with more information. The residents were extremely conversational and friendly.

Objective:

To provide information about colorectal cancer and the prevention of colorectal cancer for the purpose of raising awareness about the risk factors of colorectal cancer and preventive measures to delay or prevent colon cancer.

Results:

There were 12 residents from the Henry Clay Retirement Community that participated in the colorectal cancer educational session. The residents found the program to be very informative and were happy that they were able to be involved in such an event. The residents asked many questions and expressed that they learned information about colorectal cancer they did not previously know.

Event 5 of 5 Description: Zion Gate Missionary Baptist Church

Event Location: Zion Gate Missionary Baptist Church, Columbus, MS

Date: 5/29/2013 at 6:30 PM

Location Background:

Zion Gate Missionary Baptist Church is an African American church located in Columbus, MS. Dr. James Boyd currently serves as the pastor.

Summary:

The *Cancer Beat It!* Educational session provided to the congregation of Zion Gate Missionary Baptist Church was the final session presented by the *Cancer Beat It!* Group, and it was presented at the conclusion of the congregations regularly scheduled Wednesday night bible study service. Upon the conclusion of the bible study service, Dr. Murphy opened the presentation by presenting the informed consent, stressing that individual participation was completely voluntary and that the individual had the right to discontinue participation at anytime during the session. Upon reading the informed consent, Dr. Murphy informed those in attendance that contact information would be made available to all, in the event that the individual would like more information on the program. Once the informed consent was verbalized, those in attendance were ask to take a short pretest, which would serve as the benchmark for formal evaluation. In addition to the pretest, those in attendance were provided a colorectal cancer fact sheet and a colorectal cancer risk factors sheet. Once completed, Mrs. Ann Sansing, Northeast Mississippi Regional MP3C chair, provided those in attendance with information about the MP3C's initiatives and provided all with an invitation to join the MP3C. The participants were given an opportunity to complete the pretest, pretests were collected, and the presenters were introduced. The first presenter was Shobal Johnson, a graduate student at the Mississippi University for Women and the graduate research assistant aiding with the *Cancer Beat It!* Colorectal Cancer Grant. As this program was designed to be a "faith based" educational program, Shobal provided those in attendance with biblical scripture underlining the importance of leading a healthy life. In accordance to the colorectal cancer theme of the program, Shobal also provided the attendees with "population relevant data", specific to those receiving the message, and addressed various screening options available. The second presenter, Palina Clark, served as the nutritional expert for the group. Palina emphasized the importance of diet in terms of colorectal cancer prevention. She also stressed

that a diet rich in fruits and vegetables is significantly linked to, not only a decreased risk in colorectal cancer, but also a significant increase “overall health” and that low fat, high fruit and vegetable diets are positively correlated to a decreased probability of numerous adverse health conditions. Caleb Stratton, the final presenter, served as the physical activity expert for the group. Caleb provided the participants with information that signified the importance of physical activity, in terms of primary prevention of colorectal cancer. Caleb stressed the importance of maintaining regular physical activity, in accordance to individual limitations, and detailed practical mechanics that everyone could adhere. Once all presentations were presented, those in attendance were ask complete a posttest questionnaire on the material. Upon completion of the posttest, Ms. Cranston informed that all in attendance would be provided a free pedometer and walking log so that they may begin to practice primary prevention of colorectal cancer. Once the session was complete, the pastor closed the service and dismissed those in attendance, with the presenters being available to answer questions at the back of the church.

Objectives:

The objectives of the session were to promote the MP3C and invite participants to join and to education the participants on primary prevention of colorectal cancer methods.

Results:

The Zion Gate Missionary Baptist Church educational session included 36 attendees, of which 18 completed both a pretest and a posttest; however, due to time limitations being placed on the presentation and the failure of multiple participants to submit pretest prior to being introduced to the material, the researchers chose to exclude the results of this session from the final data report.

Appendix A – Event Forms

Event: Woodland Baptist Church Educational Session

Topic: Colorectal Cancer Primary Prevention

Date: 04/21/2013

Place: Woodland Baptist Church

Time: 5:30 PM – 7:00 PM

County & City: Lowndes, Columbus

Number Present/reached/ surveyed: 41

Method of evaluation and evaluation outcome/data: Members of the congregation/ those in attendance completed pre-test and post-test

In kind provided: Dr. Murphy and Ms. Cranston provided in kind in the form of time spent developing and presenting material, and travel cost to attend event.

Complete/Ongoing/ Sustained Cancer Events Accomplished:

Completed: The program is complete

Event: Missionary Union Baptist Church Educational Session

Topic: Colorectal Cancer Primary Prevention

Date: 05/15/2013

Place: Missionary Union Baptist Church

Time: 6:00 PM – 8:00 PM

County & City: Lowndes, Columbus

Number Present/reached/ surveyed: 25

Method of evaluation and evaluation outcome/data: Members of the congregation/ those in attendance completed pre-test and post-test

In kind provided: Dr. Murphy and Ms. Cranston provided in kind in the form of time spent developing and presenting material, and travel cost to attend event.

Complete/Ongoing/ Sustained Cancer Events Accomplished:

Completed: The program is complete

Event: Lake Grove Baptist Church Educational Session

Topic: Colorectal Cancer Primary Prevention

Date: 05/22/2013

Place: Lake Grove Baptist Church

Time: 6:00 PM – 8:00 PM

County & City: Clay, Prairie

Number Present/reached/ surveyed: 25

Method of evaluation and evaluation outcome/data: Members of the congregation/ those in attendance completed pre-test and post-test

In kind provided: Dr. Murphy and Ms. Cranston provided in kind in the form of time spent developing and presenting material, and travel cost to attend event.

Complete/Ongoing/ Sustained Cancer Events Accomplished:

Completed: The program is complete

Event: Henry Clay Retirement Community Educational Session

Topic: Colorectal Cancer Primary Prevention

Date: 05/24/2013

Place: The Henry Clay Retirement Community

Time: 2:30 PM – 5:00 PM

County & City: Clay, West Point

Number Present/reached/ surveyed: 12

Method of evaluation and evaluation outcome/data: Tenants of Henry Clay Retirement Community / those in attendance completed pre-test and post-test

In kind provided: Dr. Murphy and Ms. Cranston provided in kind in the form of time spent developing and presenting material, and travel cost to attend event.

Complete/Ongoing/ Sustained Cancer Events Accomplished:

Completed: The program is complete

Event: Zion Gate Missionary Baptist Church Educational Session

Topic: Colorectal Cancer Primary Prevention

Date: 05/29/2013

Place: Zion Gate Missionary Baptist Church

Time: 6:30 PM – 8:30 PM

County & City: Lowndes, Columbus

Number Present/reached/ surveyed: 36

Method of evaluation and evaluation outcome/data: Members of the congregation/ those in attendance completed pre-test and post-test

In kind provided: Dr. Murphy and Ms. Cranston provided in kind in the form of time spent developing and presenting material, and travel cost to attend event.

Complete/Ongoing/ Sustained Cancer Events Accomplished:

Completed: The program is complete

Appendix B – Procedure

PROCEDURE

1. Welcome everyone:

Informed Consent Script: Hello, my name is _____. Today we are going to be discussing colorectal cancer. This discussion is sponsored by the Mississippi University for Women, the Mississippi Partnership for Comprehensive Cancer Control (MP3C), and the Mississippi Department of Health (MSDH) Comprehensive Cancer Control Program. As a way to evaluate the effectiveness of our program, we are going to ask you to complete a survey before our talks and then after our speakers have finished presenting. Please keep in mind that your participation is voluntary. I can supply you with contact information regarding this study upon request. Answering the short pre and post surveys will only take about 5 to 10 minutes. The information provided will remain strictly confidential and you will not be identified by your answers. Instead of writing a name on the surveys, we ask you to write the number written on the top right hand corner of the green handout. Your name will not be disclosed in any way. Data will be compiled as a whole with no individual responses tied to your name or any identifying information about you. All information disclosed during the survey will be kept in a secure location.

2. Hand out the following:

- Colorectal Cancer Basic Fact Sheet (**GREEN**)
- Colon Cancer Risk Factors Fact Sheet (**BLUE**)
- Pre-test (**ORANGE**)

3. Ask participants to answer the pre-test questions. Participants need to write the number found on the green sheet (written in red ink on top right hand corner) on the pre-test.

4. Collect pre-tests.

5. Introduce speakers (Dr. Murphy).

6. Have speakers present.

- Introduction to colorectal cancer (Mr. Shobal Johnson)
- Physical Activity and Colorectal Cancer (Mr. Caleb Stratton)
- Nutrition and Colorectal Cancer (Ms. Palina Clark, RD)
- Wrap-up (Ms. Katie Cranston)

7. Hand out Post-test (**YELLOW**). Ask participants to answer the post-test questions. Participants need to write the number found on the green sheet (written in red ink on top right hand corner) on the post-test.

8. Collect post-tests.

9. Thank everyone for coming

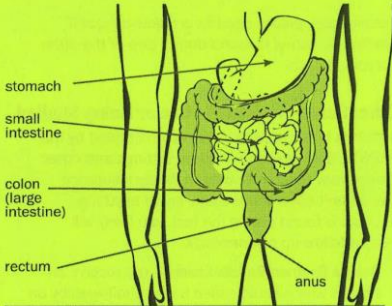
Appendix C – Program Fliers

Colorectal Cancer Screening Basic Fact Sheet (Front)

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Colorectal Cancer Screening

Basic Fact Sheet



Colon and Rectum

What Is Colorectal Cancer?
Colorectal cancer is cancer that occurs in the colon or rectum. Sometimes it is called colon cancer. The colon is the large intestine or large bowel. The rectum is the passageway that connects the colon to the anus.

It's the Second Leading Cancer Killer
Colorectal cancer is the second leading cancer killer in the United States, but it doesn't have to be. If everyone aged 50 years or older had regular screening tests, at least 60% of deaths from this cancer could be avoided. So if you are 50 or older, start getting screened now.

Who Gets Colorectal Cancer?

- Both men and women can get it.
- It is most often found in people 50 or older.
- The risk increases with age.


Are You at High Risk?
Your risk for colorectal cancer may be higher than average if:

- You or a close relative have had colorectal polyps or colorectal cancer.
- You have inflammatory bowel disease.
- You have a genetic syndrome such as familial adenomatous polyposis (FAP) or hereditary nonpolyposis colorectal cancer.

People at high risk for colorectal cancer may need earlier or more frequent tests than other people. Talk to your doctor about when to begin screening and how often you should be tested.


Screening Saves Lives
If you're 50 or older, getting a colorectal cancer screening test could save your life. Here's how:

- Colorectal cancer usually starts from polyps in the colon or rectum. A polyp is a growth that shouldn't be there.
- Over time, some polyps can turn into cancer.
- Screening tests can find polyps, so they can be removed *before* they turn into cancer.
- Screening tests also can find colorectal cancer early. When it is found early, the chance of being cured is good.



Colon Polyp

Colorectal Cancer Can Start With No Symptoms
Precancerous polyps and early-stage colorectal cancer don't always cause symptoms, especially at first. This means that someone could have polyps or colorectal cancer and not know it. That is why having a screening test is so important.



1-800-CDC-INFO (1-800-232-4636)
www.cdc.gov/screenforlife

Colorectal Cancer Screening Basic Fact Sheet (Back)

What Are the Symptoms?

Some people with colorectal polyps or colorectal cancer do have symptoms. They may include:

- Blood in or on your stool (bowel movement).
- Stomach pain, aches, or cramps that don't go away.
- Losing weight and you don't know why.

If you have any of these symptoms, talk to your doctor. These symptoms may be caused by something other than cancer. However, the only way to know what is causing them is to see your doctor.

Types of Screening Tests

Several different screening tests can be used to find polyps or colorectal cancer. Each can be used alone. Sometimes they are used in combination with each other. The U.S. Preventive Services Task Force (USPSTF) recommends colorectal cancer screening for men and women aged 50–75 using high-sensitivity fecal occult blood testing (FOBT), sigmoidoscopy, or colonoscopy. Talk to your doctor about which test or tests are right for you. The decision to be screened after age 75 should be made on an individual basis. If you are older than 75, ask your doctor if you should be screened.

• High-Sensitivity FOBT (Stool Test)

There are two types of FOBT: One uses the chemical guaiac to detect blood. The other—a fecal immunochemical test (FIT)—uses antibodies to detect blood in the stool. You receive a test kit from your health care provider. At home, you use a stick or brush to obtain a small amount of stool. You return the test to the doctor or a lab, where stool samples are checked for blood.

How Often: Once a year.

• Flexible Sigmoidoscopy

For this test, the doctor puts a short, thin, flexible, lighted tube into your rectum. The doctor checks for polyps or cancer inside the rectum and lower third of the colon.

How Often: Every five years. When done in combination with a High-Sensitivity FOBT, the FOBT should be done every three years.

• Colonoscopy

This is similar to flexible sigmoidoscopy, except the doctor uses a longer, thin, flexible, lighted tube to check for polyps or cancer inside the rectum and the entire colon. During the test, the doctor can find and remove most polyps and some cancers.

How Often: Every 10 years.

Colonoscopy also is used as a follow-up test if anything unusual is found during one of the other screening tests.

Other Screening Tests in Use or Being Studied

Although these tests are not recommended by the USPSTF, they are used in some settings and other groups may recommend them. Many insurance plans don't cover these tests, and if anything unusual is found during the test, you likely will need a follow-up colonoscopy.

- **Double Contrast Barium Enema**—You receive an enema with a liquid called barium, followed by an air enema. The barium and air create an outline around your colon, allowing the doctor to see the outline of your colon on an X-ray.
- **Virtual Colonoscopy**—Uses X-rays and computers to produce images of the entire colon. The images are displayed on the computer screen.
- **Stool DNA Test**—You collect an entire bowel movement and send it to a lab to be checked for cancer cells.

Will Insurance or Medicare Pay?

Many insurance plans and Medicare help pay for colorectal cancer screening tests. Check with your plan to find out which tests are covered for you. To find out about Medicare coverage, call 1-800-MEDICARE (1-800-633-4227) or visit www.medicare.gov.

The Bottom Line

If you're 50 or older, talk with your doctor about getting screened. For more information, visit www.cdc.gov/screenforlife or call 1-800-CDC-INFO (1-800-232-4636). For TTY, call 1-888-232-6348.



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Centers for Disease Control and Prevention



CDC Publication #99-6949 • Revised June 2009.

Colorectal Cancer Risk Factor Sheet

Factors that may increase your risk of colon cancer include:



Risk Factors You Cannot Control

- **Older age.** About 90 percent of people diagnosed with colon cancer are older than 50 years of age. Colon cancer can occur in younger people, but it occurs much less frequently.
- **Being African-American.** African-Americans have a greater risk of colon cancer than do people of other races.
- **A personal medical history of colorectal cancer or polyps.** If you've already had colon cancer or adenomatous polyps, you have a greater risk of colon cancer in the future.
- **Certain intestinal conditions.** Chronic inflammatory diseases of the colon, such as ulcerative colitis and Crohn's disease, can increase your risk of colon cancer.
- **Inherited syndromes that increase colon cancer risk.** Genetic syndromes passed through generations of your family can increase your risk of colon cancer. These syndromes include familial adenomatous polyposis and hereditary nonpolyposis colorectal cancer, which is also known as Lynch syndrome.
- **Family history of colon cancer and colon polyps.** You're more likely to develop colon cancer if you have a parent, sibling or child with the disease. If more than one family member has colon cancer or rectal cancer, your risk is even greater.

Risk Factors You Can Control

- **A sedentary lifestyle.** If you're inactive, you're more likely to develop colon cancer. Getting regular physical activity may reduce your risk of colon cancer.
- **Obesity.** People who are obese have an increased risk of colon cancer and an increased risk of dying of colon cancer when compared with people considered normal weight.
- **Low-fiber, high-fat diet.** Colon cancer and rectal cancer may be associated with a diet low in fiber and high in fat and calories. Research in this area has had mixed results. Some studies have found an increased risk of colon cancer in people who eat diets high in red meat.
- **Smoking.** People who smoke cigarettes may have an increased risk of colon cancer.
- **Alcohol.** Heavy use of alcohol may increase your risk of colon cancer.

Reference: Mayo Clinic Staff. (2011). Colon cancer risk factors. Retrieved from <http://www.mayoclinic.com/health/colon-cancer/DS00035/DSECTION=risk-factors>

Colon Cancer is Preventable, Treatable, Beatable

Walking Log (Back)

Examples of Online Sources of Walking Logs

American Heart Association: <http://www.startwalkingnow.org/>

Walk with Walgreens: https://www.walgreens.com/register/walk_landing.jsp

SparkPeople: <http://www.sparkpeople.com/>

Let's Go Walking Mississippi: <http://www.letsgowalkinms.com/index.php?id=4>

Examples of Walking Apps for Smart Phone (\$1.99 - \$4.00)

Walk with Map My Walk+ - GPS Pedometer: <https://itunes.apple.com/us/app/walk-map-my-walk+-gps-pedometer/id307860824?mt=8> (for iphone)

Map My Walk: <https://play.google.com/store/apps/details?id=com.mapmywalk.android2> (for android)

Pre-Post Test (Front)

Number: _____ (see GREEN handout, top right hand corner)

Please circle the correct response.

1. What colorectal cancer screening test can you have done at the North Mississippi Medical Center for \$14?

- A. High-Sensitivity Fecal Occult Blood Test (FOBT)
- B. Fecal Immunochemical Test (FIT)
- C. Colonoscopy

2. This screening test is used as a follow-up test if anything unusual is found during another screening test.

- A. High-Sensitivity Fecal Occult Blood Test (FOBT)
- B. Fecal Immunochemical Test (FIT)
- C. Colonoscopy

3. What age is the recommended age to begin being screened for colorectal cancer?

- A. 40
- B. 50
- C. 65

4. Which of the following may help to reduce the risks of colorectal cancer?

- A. Free radicals
- B. Antioxidants
- C. None of the Above

5. Some examples of sources of antioxidants are as follows:

- A. Fruits and Vegetables
- B. Lean meat and Fish
- C. Eggs and Dairy

6. How long should you warm up before exercising?

- A. 1 to 2 minutes
- B. 5 to 10 minutes
- C. It is not necessary to warm up before exercising.

7. How many minutes of moderate cardiovascular activity are recommended for general health on a weekly basis?

- A. 60 minutes
- B. 150 minutes
- C. 300 minutes

8. How long should you cool down after exercising?

- A. 1 to 2 minutes
- B. 5 to 10 minutes
- C. It is not necessary to warm up before exercising.

Pre-Post Test (Back)

9. Although colon cancer is the third leading cause of cancer death in both men and women, colon cancer death can be reduced through screening, early diagnoses.
- A. True
 - B. False
10. Daily lifestyle and dietary habits do not play a role in colon cancer development.
- A. True
 - B. False
11. During the past 20 years the death rate of colon cancer has been declining.
- A. True
 - B. False
12. Increasing fiber in the diet may prevent some types of cancers, including colorectal cancer.
- A. True
 - B. False
13. Intake of fatty foods is better from animal sources rather than plant sources
- A. True
 - B. False
14. Being physically active and achieving a healthy body weight may reduce the risk of colorectal cancer.
- A. True
 - B. False
15. Walking, swimming, and biking are considered to be low impact exercises.
- A. True
 - B. False
16. You should bounce while stretching?
- A. True
 - B. False
17. Which of these is NOT a risk factor for developing colorectal cancer?
- A. Obesity
 - B. Low levels of physical activity
 - C. A diet high in fruits and vegetables
 - D. Family history of colon cancer

Appendix D – Presentation Photos



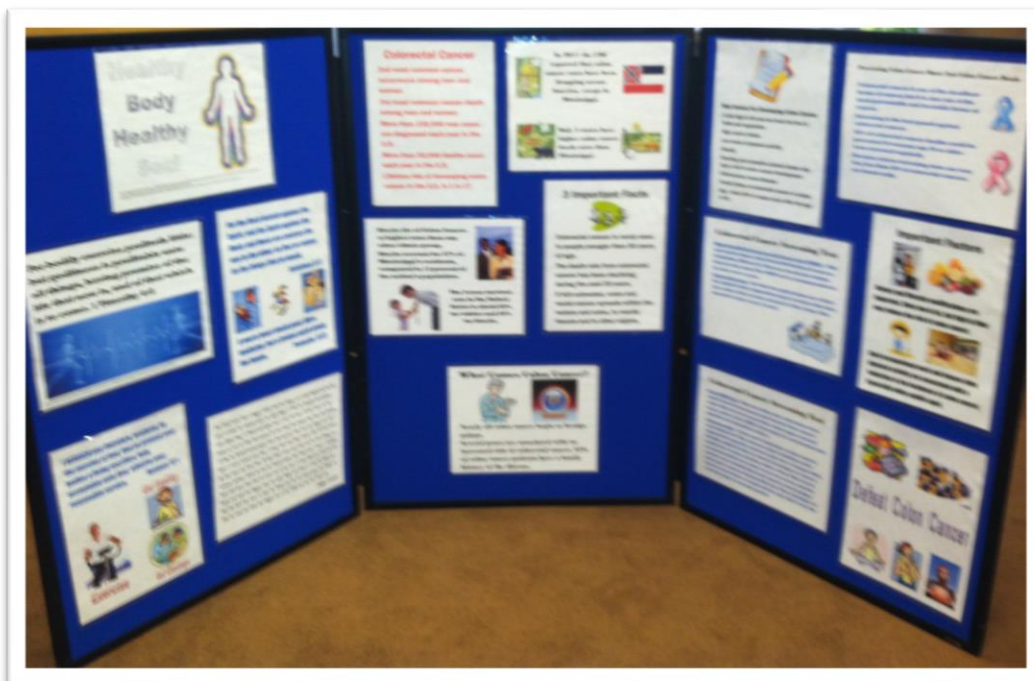


Appendix E – Items Purchased

Pedometers



Tri-Fold Presentation Board



Appendix F – Budget

Budget Item	In-Kind Contributions	MP3C Requested Budget	Budget Totals	Actual Spent
Personnel				
Stipend for Graduate Assistant – Coordinate personnel and initiatives		\$1,000	\$1,000	\$1,000.00
Registered Dietician (consultant/speaker)		\$500	\$500	\$500.00
Physical Activity Consultant (Exercise Science)		\$500	\$500	\$500.00
Dr. Murphy, Dr. Pintado, Ms. Cranston – Planning, Evaluation, Facilitators of educational sessions	\$5,000		\$5,000	
Travel & Lodging				
-Travel to Empowering Communities for a Healthier MS Conference May 21 & Per Diem for <i>Cancer Beat It!</i> Representative! for CancerBeat It! representative -Travel to Empowering Communities for a Healthier MS Conference May 21-24 & Per Diem for the Northeast Chair. -Travel to training in June for the Northeast Chair.		\$1,500	\$1,500	*\$375.00
Materials & Supplies				
Workshop Materials, posters, educational brochures, paper, final report, pedometers, refreshments for meetings		\$1,400	\$1,400	*\$1338.00
Communication				
FAX, copying, mailing,		\$100	\$100	\$100.00
Totals	\$5,000	\$5,000	\$10,000	

Budget: 6/28/13

* Budget item are close approximations due to MUW's billing cycle. Actual amounts will be confirmed on final financial report.

Appendix G – Pre and Post Test Results

Approximately 139 individuals participated in the five *Cancer Beat It! Colorectal Cancer* Educational Sessions, with 104 (74.8%) submitting both a pretest and a posttest. As previously mentioned, the pretest and posttest collected at the final location (n=33, 31.7%) were excluded from the final report due to error when collecting pretest; therefore, a total of 71 (68.2%) of the collected pretest and posttest were able to be utilized for this study.

The measure of effectiveness of the *Cancer Beat It! Colorectal Cancer* educational sessions was calculated by comparing individual responses to pretest and posttest questionnaires. Frequency distributions for individual responses were utilized to determine educational enhancement, with individual awareness improvement being established by comparing correct pretest responses to correct posttest responses. Furthermore, mean questionnaire scores were evaluated for both the pretest and the posttest by summing individual responses for each questionnaire item (maximum score = 17). Paired *t* test were used to scrutinize mean test score variances.

Table 1 illustrates the frequency distributions of each item presented in the pretest and posttest. As seen in the table, the participants showed improvement in all areas, with the exception of one question “Daily lifestyle and dietary habits do not play a role in colon cancer development”. Although this discrepancy cannot be immediately explained, the researchers found this result very puzzling when comparing all additional findings, further investigation would be necessary to seek out the root of participant misconception.

Table 1 Correct responses to individual questions for pretest and posttest

Question	Correct Response	
	Pretest (%)	Posttest (%)
What colorectal cancer screening test can you have done at North Mississippi Medical Center for \$14?	36.6	76.1
This screening is used as a follow-up test if anything unusual is found during another screening test.	45.1	52.1
What age is the recommended age to begin being screened for colorectal cancer?	81.7	91.5
Which of the following may help to reduce the risk of colorectal cancer?	53.5	83.1
Some examples of antioxidants are as follows:	81.7	90.1

How long should you warm up before exercising?	76.1	95.8
How many minutes of moderate cardiovascular activity are recommended for general health on a weekly basis?	50.7	80.3
How long should you cool down after exercising?	83.1	95.8
Although colon cancer is the third leading cause of cancer death in both men and women, colon cancer can be reduced through screening, early diagnoses.	94.4	98.6
Daily lifestyle and dietary habits do not play a role in colon cancer development	91.5	81.7
During the past 20 years the death rate of colon cancer has been declining.	31.0	73.2
Increasing fiber in the diet may prevent some types of cancers, including colorectal cancer.	93.0	97.2
Intake of fatty foods is better from animal sources rather than plant sources	87.3	88.7
Being physically active and achieving a healthy body weight may reduce the risk of colorectal cancer.	88.7	97.2
Walking, swimming, and biking are considered to be low impact activities	54.9	85.9
You should bounce while stretching.	84.5	87.3
Which of these is NOT a risk factor for developing colorectal cancer?	66.2	73.2

Table 2 indicates that the *Cancer Beat It!* Educational sessions did produce a significant increase in participants' posttest scores ($p < 0.001$). Mean test scores for the pretest and posttest were 12.08 (SD = 2.506) and 14.08 (SD = 2.347) respectively, with the highest possible score being a 17. The significance of the educational sessions does call to attention concern to the decrease in correct responses to the above mentioned test item.

Table 2 Test scores for pretest and posttest comparison

Test	N	Mean Score*	SD	p value
Pretest	71	12.08	2.506	0.000
Posttest		14.08	2.347	

*Maximum test score= 17

Overall, the data indicates that the *Cancer Beat It! Colorectal Cancer* educational sessions had a significant impact on the educational awareness of the participants taking part in the program. Although some results did raise various questions, the responses from the participants and the paired *t* test do indicate that the program was successful.