Colorectal Cancer Prevention in Richland County

Get your rears in gear!

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I. Executive Summary

II. Needs Assessment

Overview of Colorectal Cancer

Colorectal cancer (CRC) is commonly referred to as colon cancer, or cancer of the large intestine, but CRC includes the less common rectal cancer, which is a cancer of the rectum. Adenocarcinomas, cancer that starts in the mucus cells inside of the colon and rectum, make up most (96%) of colorectal cancers (American Cancer Society, 2018e). According to the Mayo Clinic Staff (2018) and The American Cancer Society (2018a), while there is no one specific cause of colon cancer, it can typically be attributed to an unhealthy lifestyle. That includes low fiber, high fat diets, smoking, drinking, and engaging in little exercise. Those who are obese and/or have diabetes have an increased risk of CRC. Other factors that lead to an increased risk of CRC are older age, family history of colon cancer, and inherited syndromes. It has also been found that African Americans are at an increased risk of CRC.

The American Cancer Society (2018e) informs us that CRC primarily begins with a growth on the inner lining of the rectum or colon called polyps. The two primary types of polyps are adenomatous, and hyperplastic and inflammatory polyps. Hyperplastic and inflammatory polyps do not normally change into cancer, so it is deemed not pre-cancerous. Adenomatous polyps (non-cancerous growths) often do become cancerous, so they are deemed pre-cancerous. According to Mayo Clinic (2018), signs and symptoms of colon cancer include diarrhea or constipation that lasts longer than four weeks, blood in stool, pain, cramping or persistent gas, weakness, and weight loss.

According to the American Cancer Society (2018d), treatment of colorectal cancer primarily consists of surgery, radiation therapy, chemotherapy, and targeted therapy and is largely based on the stage (I, II, III, or IV) of the cancer. Surgeries to remove polyps within the colon can be done during stage I. For stage II and III CRC, surgery (partial colectomy - removal of a portion of the colon) and chemotherapy (drugs that inhibit cancer cell growth) are used to treat the cancer. Stage II involves migration of the cancer out of the colon and stage III involved cancer affecting the lymph nodes. When colorectal cancer advances and spreads to other organs (besides the lymph nodes), it is considered stage IV, a combination of surgery, Chemo and targeted therapy are used to treat this stage. Targeted therapies are drugs that can be taken with or separately from chemo that target specific biological processes, like the growth of blood cells, or proteins.

Populations Affected

Overview

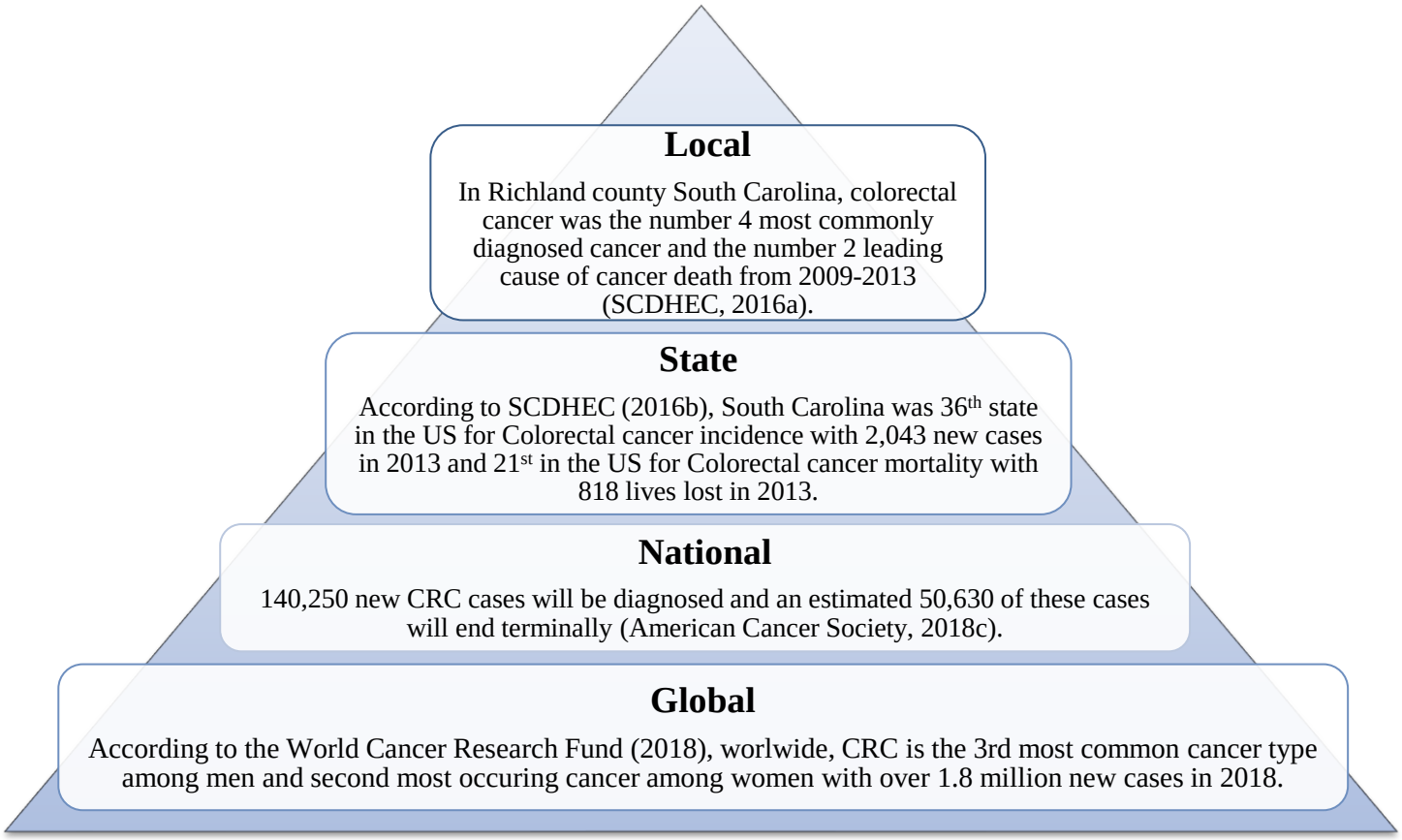

Figure 2.1

Impacts of Colorectal Cancer

The disease can be fatal to those who are diagnosed too late and symptoms make daily life uncomfortable. If diagnosed to late the cancer can take over the patient's body very quickly. Osterhaus states in on online blog about the effect of her father's colon cancer on her family, that he lived only 4 months after the diagnosis. (Osterhaus, 2011). Family members of those who have colorectal cancer are at a higher risk of developing the disease later in life (SCDHEC, 2018). So, it is important for those who have a family history of colorectal cancer to take precautionary measures such as screening once they reach the age of 50 or before.

Priority Population

Race: African American	Location: Richland County, South Carolina
	Gender: Male
	Age: 30-35

Black men and women both are at higher risk for colorectal cancer in South Carolina than their white counterparts. This has only been the case since 1989 previously white males had a higher risk for CRC. It is believed this shift is due to whites' utilization and access to screening tests (Alteri, et al., 2014).

Risk Factors

Non-Modifiable Risk Factors

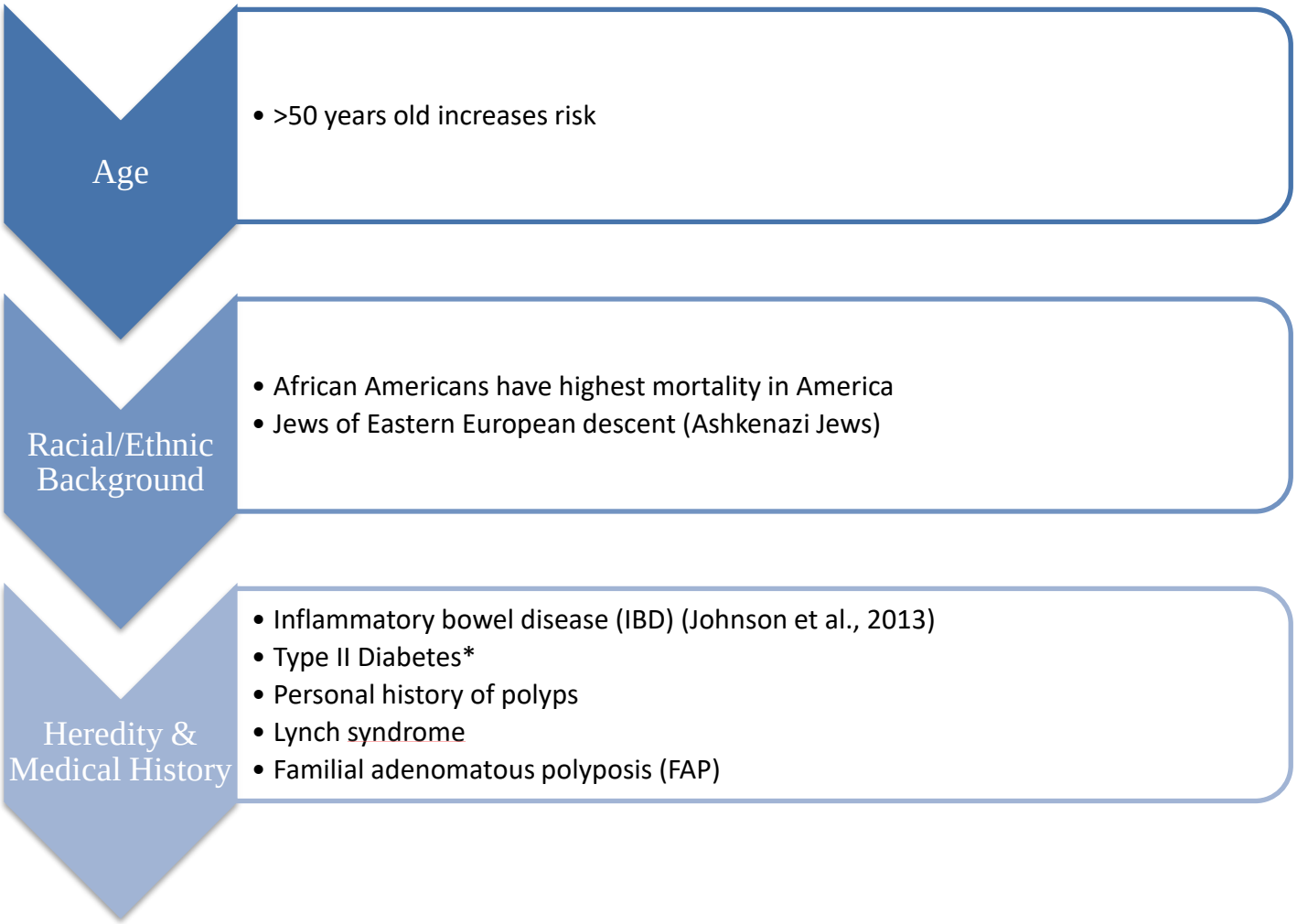

Figure 2.2

Modifiable Risk Factors

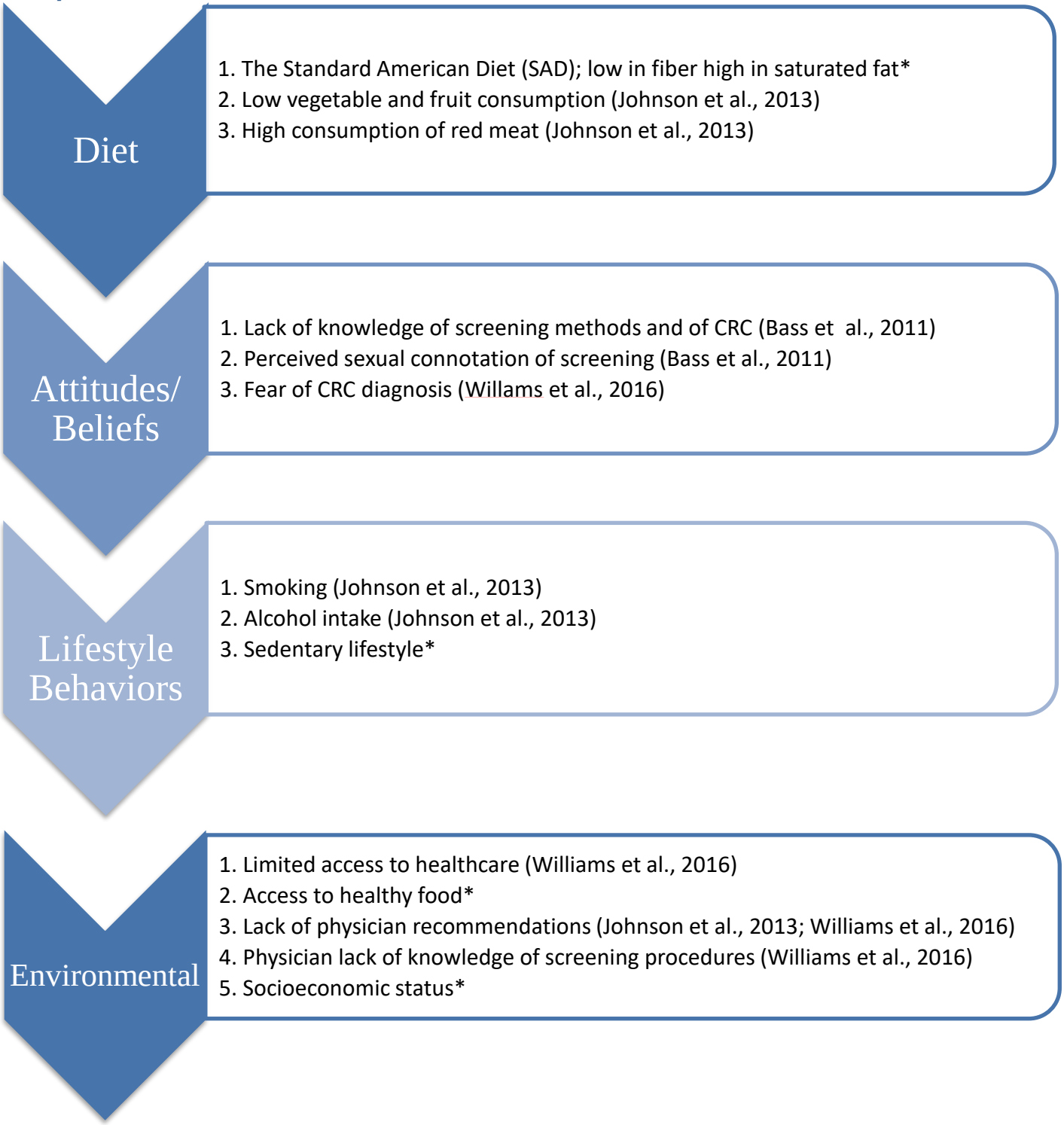

Figure 2.3

Prioritization Matrix of Risk Factors

	More important	Less important
More changeable	• Lack of knowledge on screening (colonoscopy) and CRC • Perceived sexual connotation of screening • Fear of a CRC diagnosis • Lack of time • Prior screening status	• Insurance status • Underconsumption of fruits and vegetables, over consumption of red meat • Physician knowledge of screening • Physician recommendation
Less changeable	• Family history • Genetic predisposition • Inherited syndromes • Racial and ethnic background • Racial and ethnic background	• Older age • Inflammatory bowel disease • Access to healthy food • SAD Diet • Inactive lifestyle • Smoking • Obesity • Alcohol intake • Socioeconomic status

Table 2.1

Steering Committee

Representatives of all segments of the priority population:
-Charles Barkley – 33-year-old African American male who has never been screened for CRC -Leroy Turner - patient with stage four terminal colorectal cancer
Influencers:
-Johny Smith – child of Andrew Smith, whom died from Colorectal Cancer after refusing to get screened, finally discovered cancer after it was too late. Now, Jonny must grow up without a dad. -Josiah Marks - Pastor of local church -Rodrick Samuels – Lives in Richland, County and has a family history of CRC, so he started to get screened (colonoscopy) when he was 34, caught CRC in early stages. Is now 60 years old and regularly gets screened for CRC.
Doers:
Health promotion/education specialists: • Amy Best • Jerimiah Kinsley Program Planners • Christina Nielsen • Jason Hubbs • Sarah Nacouzi • Coleman Habib • Brooklyn Parliament
Representative of sponsoring agency:
-Dr. Frank Berger – Director of Center for Colon Cancer Research at University of South Carolina
Other Stakeholders:
-University of South Carolina Colorectal Cancer Research lab -Colorectal Cancer Screening Program of South Carolina (CC) -South Carolina Cancer Alliance -Colon Cancer Coalition
Good Leadership:
-Melanie Skilx – Skilled health education specialist in cancer prevention

Table 2.2

Predisposing, Enabling, and Reinforcing Factors Affecting CRC Screening Behavior

Factor Type	Factor	Importance
Predisposing	General sense of mistrust and fear amongst African American men toward the American health care system.	*African American men are less likely to go the doctor due to historical maltreatment/institutional racism in the healthcare system (think Tuskegee Study) and therefore African American men are less likely to seek secondary prevention measures such as get screened for CRC.*
	Perceived sexual connotation of colonoscopies	*In the African American community, the sexual connotation of screening makes specifically African American men not want to get screened*
Enabling Factors	Lack of access to healthcare or physician recommendation	*If African Americans are not getting the referrals to physicians they should be, they will not know how to take the next steps to get screened. It is not enough to tell someone to do something without giving them to resources to act on the behavior.*
	Insurance status	*If one has insurance, they are more likely to use primary care, which in turn means they are more likely to be aware of screening opportunities, giving them a higher chance of utilizing screening.*
Reinforcing Factors	There is a lack of social support from family and friends to encourage CRC screening	*When a community does not support a certain behavior, such as getting screened, they will not provide positive peer pressure, nor will they support/reward the person for getting screened. In fact, there may be a negative attitude toward screening that further reinforces not seeking screening.*
	There are no immediate rewards to getting screened, only negative outcomes	*Although a negative test result may seem like a reward, it is only telling someone what you assume – that they are healthy. However, when one gets a positive result for CRC or the early stages such as a non-cancerous polyp, one will have to spend money on treatment and come back to the doctor regularly, which is does motivate the patient*

Table 2.3

III. Mission Statement, Goals and Objectives

Mission Statement & Goals

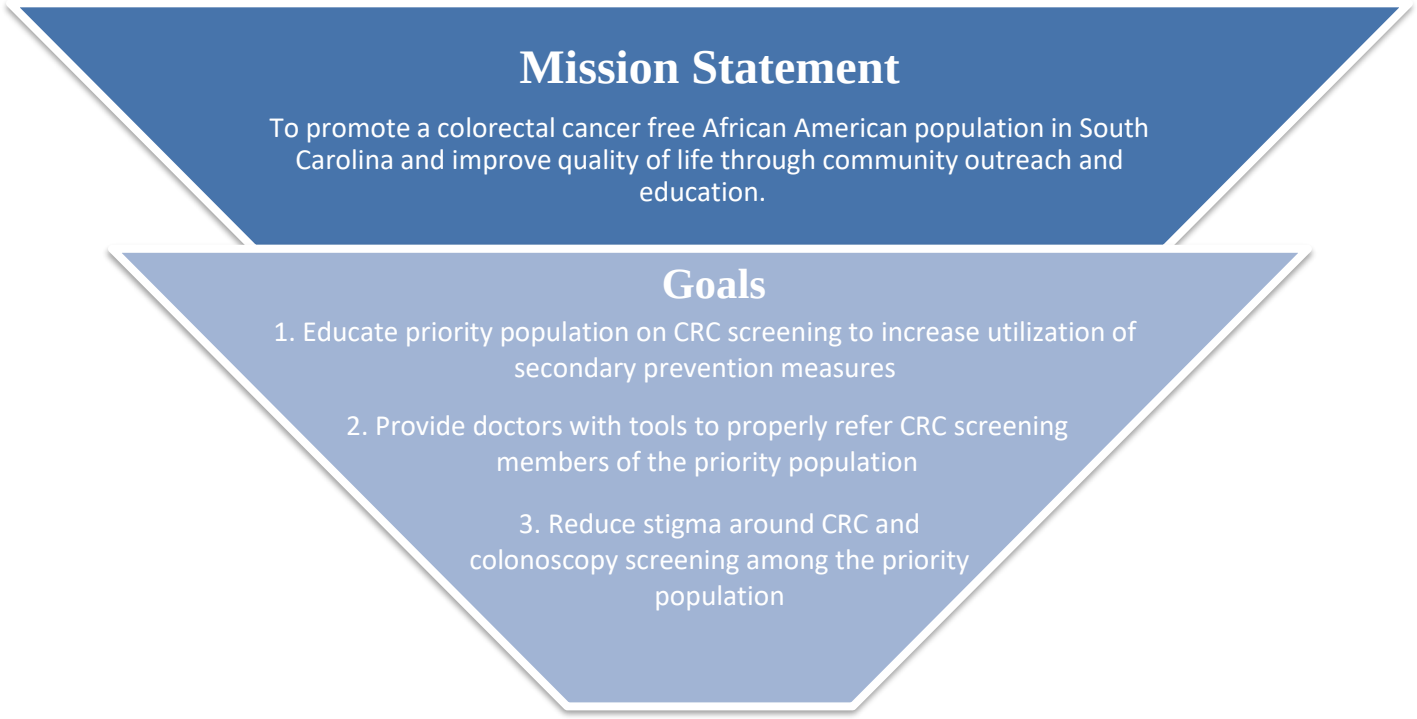

Figure 3.3

Objectives

Process Objectives

- By the end of November 2018, program planners will choose/create two different pamphlets describing screening to give out to give to the target population.
- By the end of November 2018, program planners will plan a curriculum to educate priority population screening information to be presented at local African Americans churches

Learning Objectives

- After receiving a short presentation on CRC, 80 percent of the African American men will be able to identify risk factors and symptoms of CRC by scoring 80% or higher on a post test.
- After attending a screening information session, 80 percent of African American men in attendance will be able to accurately describe CRC screening by completing a post test to 80% or above.

Behavioral Objectives

- Increase early screening among African American men age 30-35 in Richland County, South Carolina by the end of January 2019.

Outcome Objectives

- By 2020, the rates of CRC mortality among African American men in South Carolina will decrease by 5 per 100,000 reducing overall rate from 28 to 23 deaths.

Figure 3.4

IV. Implementation/Intervention

Theory of Planned Behavior

Theory of Planned Behavior (TPB) will be used in the following intervention of CRC. TPB allows us to focus on behavior change by specifically changing negative attitudes and perceptions of colonoscopy. Attitude towards the behavior, subjective norms, and perceived control are the main constructs of TPB. This theory is backed by previous research on cancer screening specifically among men and has manifested results that support and explain their cancer screening intention and behavior (Sieverding, Matterne, & Ciccarello, 2010). If TPB is useful in broad cancer screening interventions, then it will be useful in understanding CRC screening intention and behavior among men.

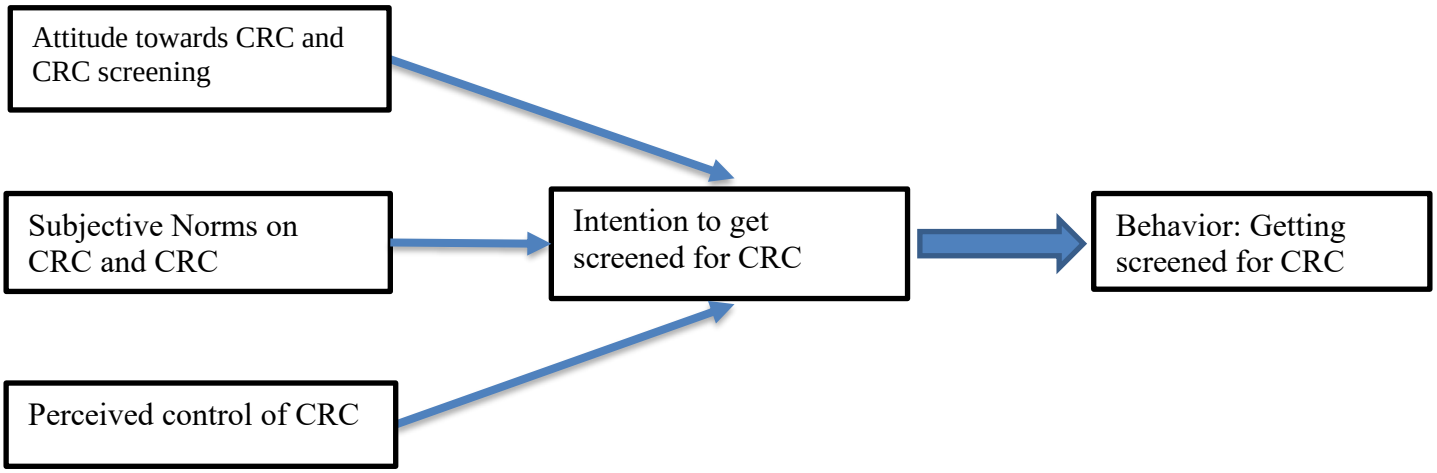

Figure 4.1

Intervention Strategies

Objective Type	Theory/Construct	Intervention Strategy	Possible Activities
Learning	TPB – Perceived Control	*Health Communication & Health Related Community Service*	-Brochure in local churches -Presentation on CRC statistics in local churches on survival rates after early screening -Community member testimony -Health risk assessment
Learning	TPB - Attitude and subjective norms about CRC screening	Health Education	-Series of lessons at a local church on CRC screening -Videos on CRC screening -Community member testimony
Behavioral	TPB - Intention to get screened	*Health Communication & Environmental Change Strategies*	-Post "get screened" posters in local churches -Community member coalition with local program to increase positive peer pressure -Incentivize getting screened

Table 4.1

Logic Model

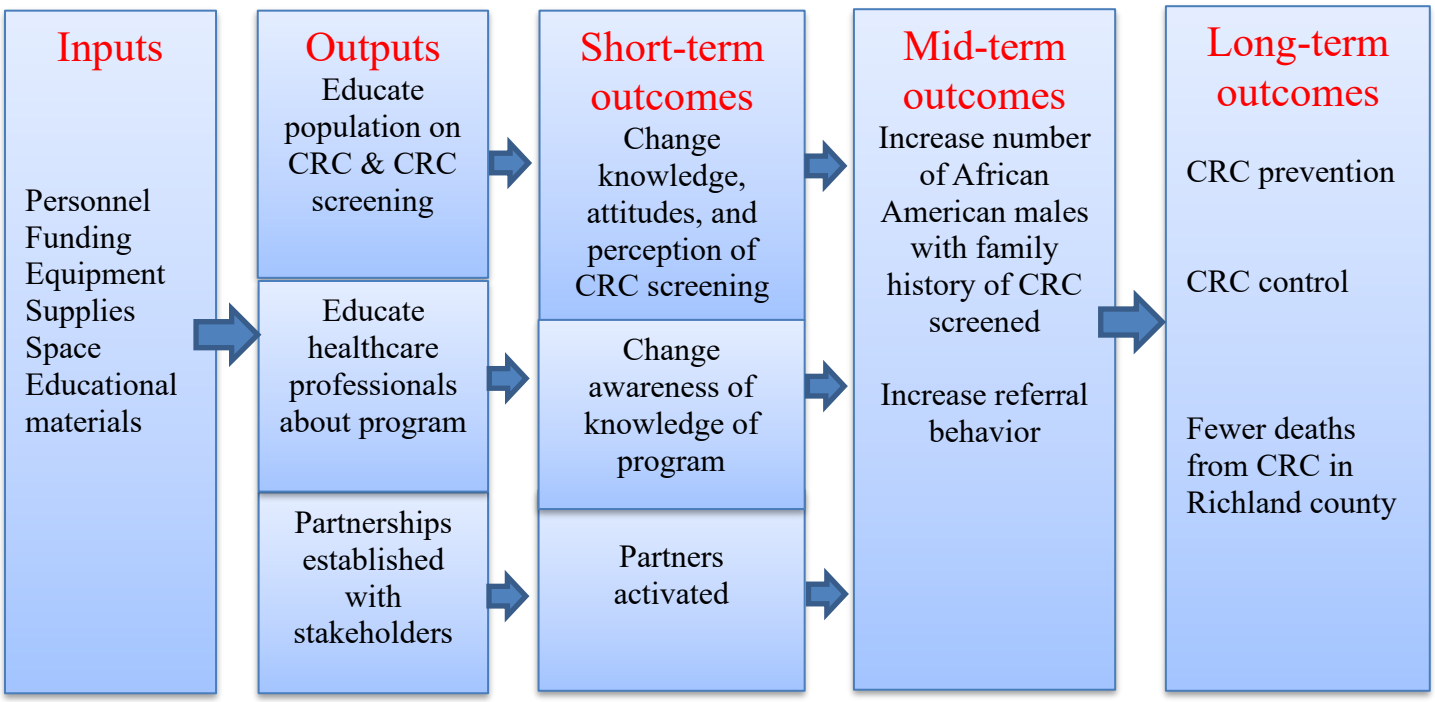

Figure 4.2

Program Kickoff

1. Post flyers in first church 2 weeks before “program kick-off”
2. Promote program in churches the Sunday before “program kickoff”
3. Implement pilot at Zion Baptist Church

V. Program Resources

Human, Fiscal, & Technical Resources

Personnel	Fiscal	Technical
Paid Staff • Health Educators (2) • Program planners & evaluators (3) • Accounting manager **Volunteers** • Health Care providers • Influencers/Members of priority population • Church officials	**$43, 770 – see budget**	**Space** • Office space to analyze data/plan program/host meetings • Churches – free for providing free health risk assessment to members • Richland County – 15 churches** **Equipment** • Computer with HDMI output • HDMI cord • Flash drive (4) • Printer • Projector **Supplies** • Pamphlets • Pen • Paper

Table 5.1

Program Timeline

	Month Year											
Tasks	S 18	O 18	N 18	D 18	J 19	F 19	M 19	A 19	M 19	J 19	J 19	A 19
Conduct program rationale	X											
Conduct needs Assessment		X										
Develop goals and objectives		X										
Develop intervention			X									
Conduct formative evaluation				X								
Obtain funding				X	X							
Market program					X	X						
Pilot test program					X							
Phase in 3 churches						X						
Post test #1 (1st 3)						X						
Phase in next 6 churches							X					
Post test #2 (1st 3)							X					
Post test #1 (2nd 6)							X					
Process Evaluation							X					
Post test #2 (2nd 6)								X				
Phase in final 5 churches								X	X			
Post test #1 (final 5)									X			
Post test #2 (final 5)										X		
Analyze data for evaluation										X		
Prepare evaluation report											X	
Distribute report											X	
Continue with follow-up for long term evaluation												X

Table 5.2. Task Development time line for CRC program planning, implementation and evaluation from September 2018 to August 2019.

Gannt Chart

	Month Year											
Task	S 18	O 18	N 18	D 18	J 19	F 19	M 19	A 19	M 19	J 19	J 19	A 19
Conduct program rationale	—											
Conduct needs Assessment		—										
Develop goals and objectives			—									
Develop intervention				—								
Hire and train program facilitators					—	—						
Buy equipment, print flyers					—	—						
Pilot program						—						
Revise the program based on pilot						—						
Begin phase in of program							—	—	—			
Full implementation									—	—	—	
Evaluate programs									—	—	—	—
Write final report												—
Check back with churches												—

Table 5.3. Gantt Chart starting in September 2018 with program planning, implementation, and evaluation deadlines.

Management

Personnel Management (HRM)	
Staff Member	**Job Responsibilities**
Program Planners • Sarah Nacouzi • Christina Nielsen	-Hire health education specialists -Train health education specialist
Technology Management	
Staff Member	**Job Responsibility**
Health Education Specialist • Amy Best • Jerimiah Kinsley	-Able to use projector
Program Planners • Brooklyn Parliament	-Provide equipment (projector, laptop) on day of program
Financial Management	
Staff Member	**Job Responsibility**
Accounting manager • Jason Hubbs	-Allocate funds responsibility -Collect, verify, and analyze information -Manage relationships with account holders
Program Planners • Brooklyn Parliament • Christina Nielsen • Coleman Habib • Sarah Nacouzi	-Write, submit, grants
Program Implementation	
Staff Member	**Job Responsibility**
Health Education Specialists (2) • Amy Best • Jerimiah Kinsley	-Implement program at local churches -Build relationships with stakeholders (priority population, CRC research center staff)
Program Planners • Brooklyn Parliament • Christina Nielsen • Coleman Habib	-Collect and analyze data -Work with health educators to plan lessons
Member of Priority Population • Johny Smith • Josiah Marks • Rodrick Samuels	-Provide testimonies at church presentations -Participate in program and influence others in network to participate

Table 5.4

VI. Program Marketing

Target Participants

- **540 participants** – 36 per church, 15 churches
- Male and females; age 30-42
- Preferred entrance for those with a family history of CRC
- Recruit via marketing strategy outlined below

Marketing Outline

The promotional tools we will utilize are advertising and personal selling. We will **advertise** by using places that our target market may frequent such as barber shops and beauty salons, drug stores, recreation centers, and the church itself. Our advertising will utilize informational appeals which will invoke an emotional response. Our goal is to make sure our target audience understands how serious colorectal cancer can be if it goes undetected, and untreated.

Through **personal selling**, we will directly interact with our target population by going to the churches and explaining to them what colorectal screening involves, as well as answering any questions they may have.

We will provide a **free health risk assessment** so that our target population will be more equipped to make an educated choice on whether to have a screening.

VII. Budget

Total Cost

Personnel	***$25,000***
Part-time account manager	$5,000
2 part-time health education specialists	$10,000 each
Volunteers	'in-kind'
Program Space	***$15,152***
12-month lease of office space on Lady Street	$15, 152
Church Space	'in-kind'
Equipment	***$2,492***
Computer	$400
Projector	$1000-$2000
HDMI cable x 2	$10 each
8 GB flash drive x 4	$8 each
Printer	$40
Supplies	***$1,126***
Equipment – projector/ screen Pamphlet's	$200
Radio announcement	$700
Flyers	$150
Paper – 12 reams	$36
Pens	$40
Total	***$43,770***

Table 6.1

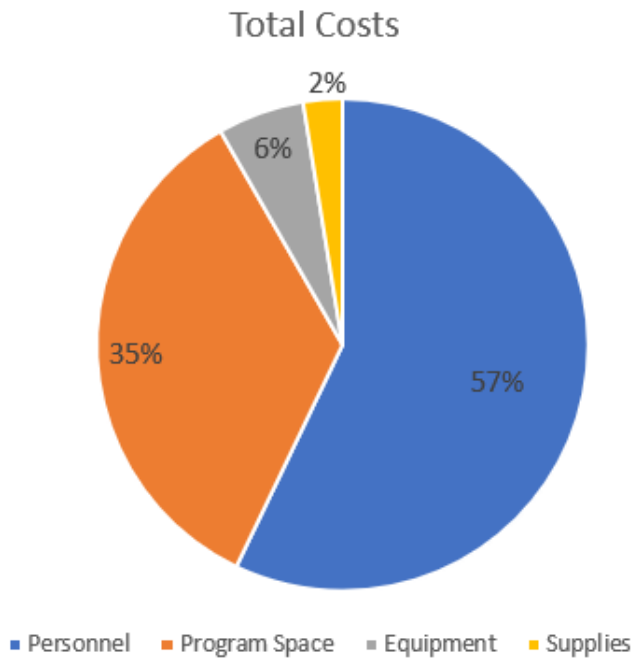

Chart 6.1

Sources of Revenue

Name of Organization	Amount of Money
University of South Carolina Colorectal Cancer Research Center	$10,000
Colon Cancer Coalition	$26,000
Winningham Foundation	**$7,770**
Total:	**$43,770**

Table 6.2

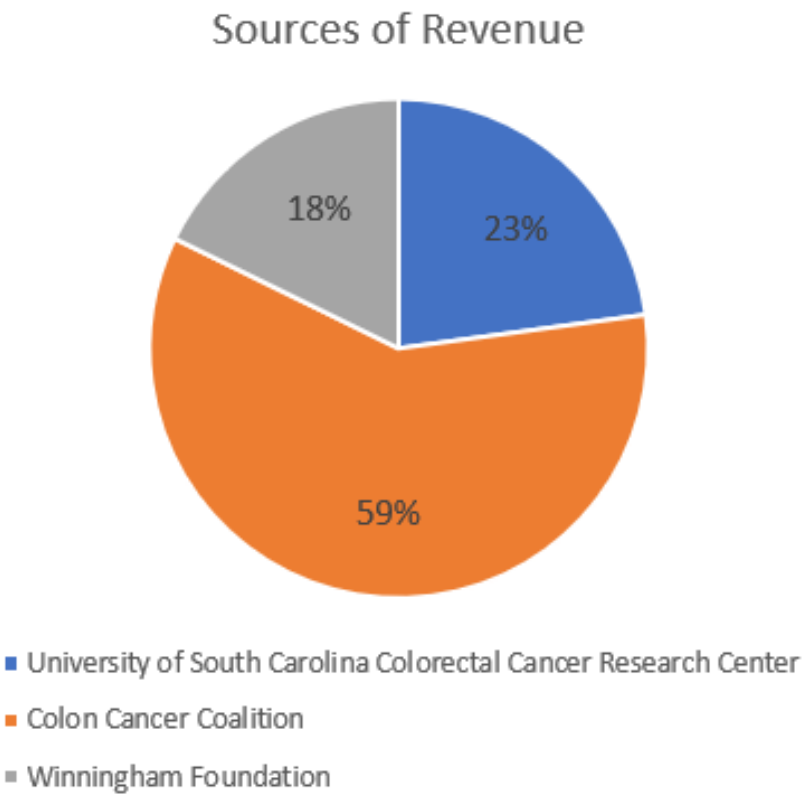

Chart 6.2

VIII. Evaluation

Evaluation Methods

	Objective	Evaluation
Process	Design/choose two different pamphlets describing screening to give out to give to our target population by the end of November 2018. Create lesson plan to present at local African Americans churches by the end of November 2018. Hire and train three health education specialists to implement the program by end of December.	Did we choose/design two different pamphlets by the end of November? Yes or No Do we have a lesson plan created? Yes or No Did we hire and three health education specialists? Yes or No Did they attend 2 training sessions? Yes or No
Impact	After receiving the lesson on CRC, 80 percent of the African American men in Richland County churches will be able accurately identify basic facts about CRC such as risk factors, symptoms, and what CRC is. After receiving the lesson on secondary prevention measures for CRC, 80 percent of African American men in the Richland County church will be able to accurately describe CRC screening.	Pre and post-tests.
Outcome	By 2020, the rates of CRC mortality among African American men in South Carolina will decrease by 5 per 100,000 reducing overall rate from 28 to 23 deaths.	Look at DHEC report for 2020.

Table 8.1

IX. Appendix

A. List of African American Churches in Richland County, South Carolina
B. Pre-test/Post-Test
C. CRC Health Risk Assessment
D. Colon Cancer Fact Sheet

A. 15 African American Churches in Richland County, SC

Bethel African Methodist Episcopal Church	Brookland Baptist Church	Brown Chapel AME Church
Zion Baptist Church	First Calvary Baptist Church	St. Martin De Porres Church
Chappelle Memorial AME Church	Trinity Episcopal Church	First Nazareth Baptist Church
Bethel AME Church	Elevation Church	First Presbyterian Church
Bethlehem Baptist Church	First Baptist Church – Columbia	Wesley United Methodist Church

B. CRC Health Risk Assessment

1. What race do you identify with?
   A. American Indian or Alaska Native
   B. Asian
   C. Black or African American
   D. Hispanic or Latino
   E. Native American or Pacific Islander
   F. White
   G. Other

2. What ethnicity do you identify with?
   A. Hispanic or Latino
   B. Not Hispanic or Latino

3. Age
   A. 18 – 25
   B. 26 – 35
   C. 36 – 45
   D. 46 – 55
   E. 56 – 65
   F. 66 – 75
   G. 85+

4. What is your sex?
   A. Male
   B. Female

5. In the past month, about how many servings of vegetables or leafy green salads did the patient eat per week?
   A. None
   B. 1 – 2
   C. 3 – 4
   D. 5 – 6
   E. 7+

6. In the past month, how many days per week did you engage in moderate physical activity?
   A. None
   B. 1 – 2
   C. 3 – 4
   D. 5 – 6
   E. 7

7. In the past month, how many hours per week did you engage in moderate physical activity?
   A. None
   B. Less than 1
   C. 1 – 3
   D. 4 – 6
   E. 7 – 10
   F. 11+

8. During the past 10 years, did the patient have a colonoscopy, sigmoidoscopy, or both?
   A. Yes
   B. No

9. In the past 10 years, has a healthcare provider informed you that you have a colon or rectal polyp?
   A. Yes
   B. No
   C. Unsure

10. During the past 30 days, did the patient take medications containing aspirin at least 3 times a week, such as:
    - Bufferin
    - Bayer
    - Excedrin
    - Other generic forms
    - Do not include Tylenol

    A. Yes
    B. No
    C. Unsure

11. During the past 30 days, did the patient take medications that do not contain aspirin at least 3 times a week, such as:
    - Advil
    - Aleve
    - Celebrex
    - Ibuprofen
    - Motrin
    - Naproxen
    - Nuprin

    Do not include Tylenol
    A. Yes
    B. No
    C. Unsure

12. Does the patient have any immediate relatives (mother, father, brothers or sisters, sons or daughters) who ever had cancer of the colon or rectum (cancer of the lower intestine)?
    A. Yes
    B. No
    C. Doesn't know

13. How many of these relatives had cancer of the colon or rectum (cancer of the lower intestine)?
    A. 1
    B. 2 or more
    C. Doesn't know

C. Pre/Post Test

1. Colorectal cancer is a serious issue for Americans.
   A. True
   B. False

2. I only need to get tested for colorectal cancer if I have a family history of it.
   A. True
   B. False

3. Lifestyle choices such as alcohol intake, exercise, and smoking all have an impact on colorectal cancer risk.
   A. True
   B. False

4. Most people should start colorectal cancer screening at age 45.
   A. True
   B. False

5. Most people should start colorectal screening at age 45.
   A. True
   B. False

6. A colonoscopy is the only test used to screen for colorectal cancer.
   A. True
   B. False

7. Colorectal cancer causes the 2nd most cancerous deaths.
   A. True
   B. False

8. Both men and women get colorectal cancer.
   A. True
   B. False

9. Colorectal cancer often starts with no symptoms.
   A. True
   B. False

10. With regular screening, colorectal cancer is preventable.
    A. True
    B. False

D. Colon Cancer Fact Sheet

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