

Key Message Evaluation for Improving Colon Cancer Screening Rates in Appalachian Men**

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*Colon refers to colon and rectum cancer combined, also known as colorectal cancer.

EXECUTIVE SUMMARY:

Kentucky has seen a significant reduction in colon cancer incidence over recent years. From 2001-2011¹, the state's incidence rate declined by 24%. During the same time frame, Kentucky went from being ranked 49th in the nation to 28th showing an increase in colon cancer screening of age-eligible adults from 34.7% to 69.9%¹. Yet, with all the positive momentum, our state remains the 4th highest ranked in the nation in number of colon cancer deaths. Colon cancer remains the second leading cause of cancer in Kentucky, second only to lung.

Colon Cancer Death Rate:

How Kentucky Ranks (2007-2011)

Kentucky is tied for the **fourth highest** colorectal death/mortality rate in the United States, compared to all other states.

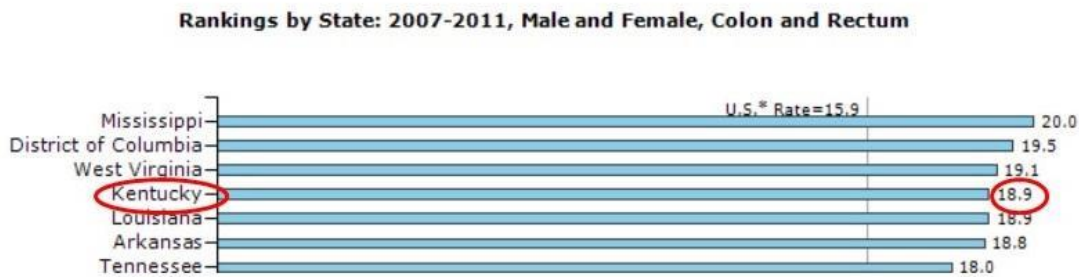
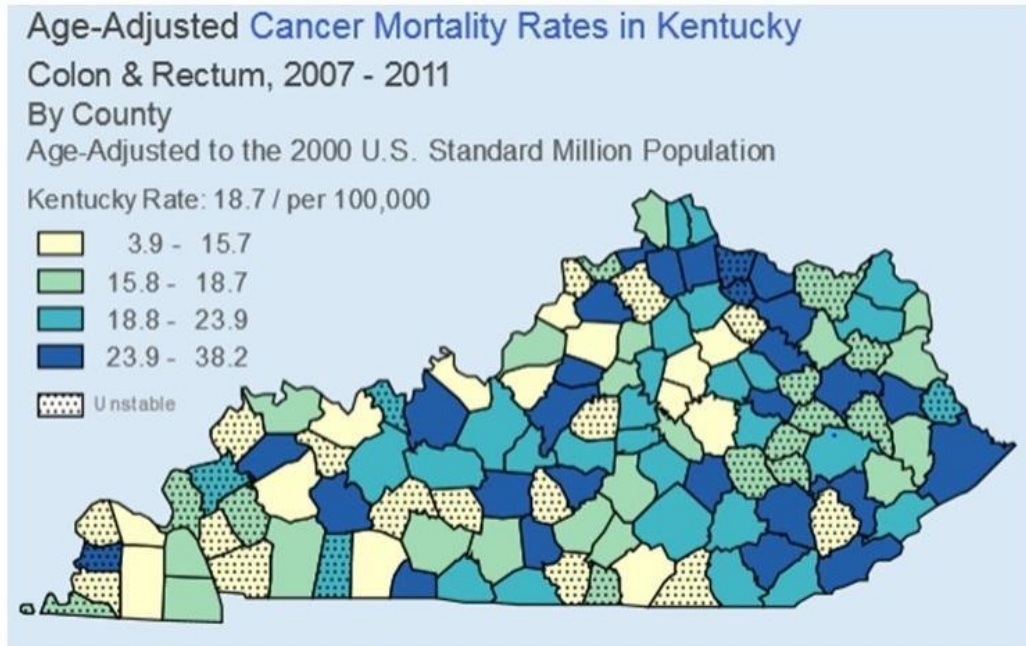


Figure 1 Colon Cancer Death Rates 2007-11, Kentucky Cancer Registry and CDC SEER site reports, 2015.

Additionally, Appalachian counties in Kentucky are disproportionately affected by colon cancer deaths than the rest of the state².



All rates per 100,000. Based on data released October 28, 2013. Last accessed Feb 19, 2015. © 2015 Kentucky Cancer Registry.

Figure 2: Colon Cancer Mortality Rates Across Kentucky, Kentucky Cancer Registry 2015.

In a review of the data related to overall colon cancer screening, incidence and mortality rates, our project team noticed that even though screening rates have improved overall, the screening rate for men lags behind that of women³. As regional cancer control specialists working in Eastern Kentucky, we promote screening through a variety of messaging formats. This led to our team to question whether something in the messages or messaging formats could be identified that would lead to an increase in male colon cancer screening rates.

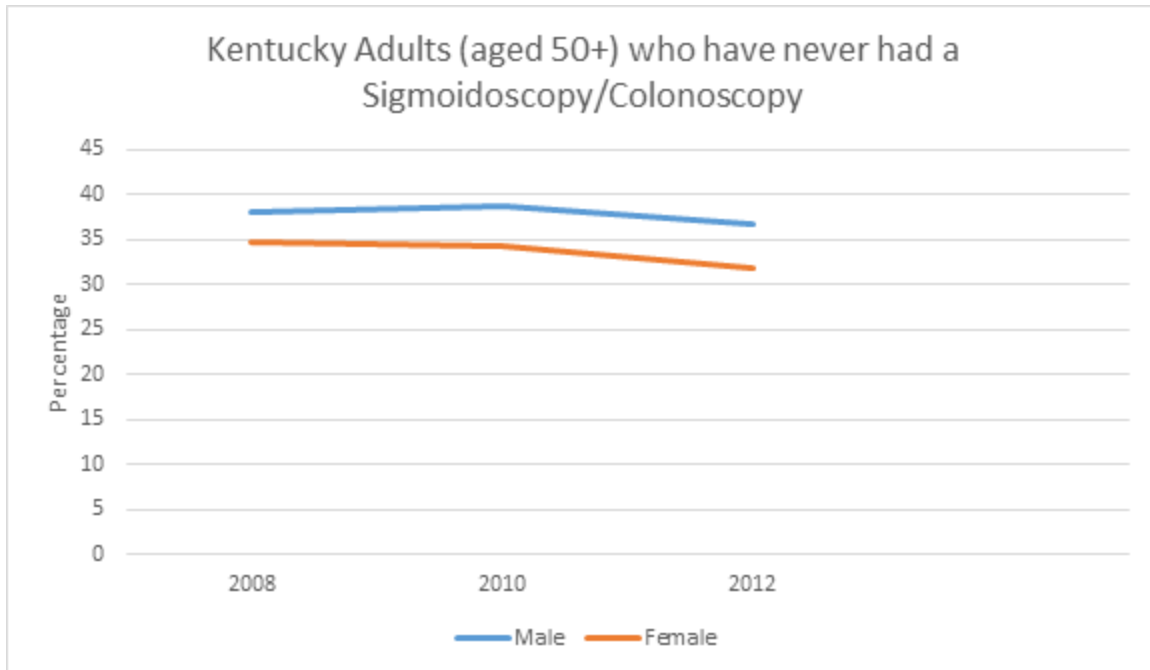


Figure 3: BRFSS Colon Cancer Screening Rates 2008-2012⁴.

INTRODUCTION/BACKGROUND:

Kentucky Cancer Program (KCP) is a statewide cancer control program affiliated with Markey Cancer Center at the University of Kentucky, and James Brown Cancer Center at the University of Louisville. KCP cooperates with federal and state organizations to bring cancer control activities into local communities. Additionally, KCP has established partnerships with local organizations, providers and partners who collaborate in the planning, implementation and evaluation of cancer prevention and control activities throughout the state. All of these partnerships work to reduce cancer incidence and mortality through education, research, and service programs.

In July 2008, Kentucky lawmakers passed legislation to establish a colon cancer screening program in the state. It included a directive for the Kentucky Cancer Program to establish a colon cancer screening education and outreach program in each of the state's 15 area development districts with a focus on individuals who lack access to screening.

Even though the legislation did not include funding, KCP moved forward and established a statewide program based on an evidence-based model called Targeted Colon Cancer Outreach Program (TCCOP)⁵. Thus, KCP implemented the TCCOP as a statewide education and outreach program designed to spread the word about the importance of colon cancer screening.

The program encourages coordination of efforts and the development of partnerships to implement a broad range of community and provider interventions focused on increasing awareness about the importance of colon cancer screening.

Launched in 2009, the program was successfully piloted in Kentucky and endorsed by 15 District Cancer Councils, American Cancer Society, Kentucky Cancer Consortium, Kentucky Colon Cancer Prevention Committee, and the Kentucky Colon Cancer Screening Advisory Committee. District Cancer Council meetings engaged 456 partners statewide in developing district plans. In addition, a Colon Cancer Forum was held to bring state and community representatives together to provide colon cancer data, highlight best practices, build partnerships, and develop recommendations for effective interventions and strategies tailored to Kentucky.

Working with community, regional, and state partners, KCP has been able to use the framework of TCCOP to implement several colon cancer control initiatives such as Colon Cancer is Good Business, Get the FIT Facts campaign, Colon Cancer Screening Resource Toolkit, and Colon Cancer Pathways.

KCP is uniquely positioned throughout the state to offer community-level implementation of cancer control activities, largely by actively disseminating prevention and screening messages.

Reducing colon cancer incidence and mortality is one of the key goals of the Kentucky Cancer Action Plan (CAP). Using TCCOP's framework and strategies outlined in CAP, KCP and its regional cancer control specialists (in coordination with all of the aforementioned entities), has assisted in the improvement of colon cancer screening rates.

Our team filtered our project's focus through the following CAP strategies that are oriented to individuals:

- Tailor small media (videos and printed materials such as letters, brochures, and newsletters) to inform and motivate people to be screened for colon cancer.
- Implement a statewide public awareness campaign on colon cancer screening that uses simple, consistent messages that can be tailored and delivered to organizations and individuals.

Problem Statement: Why, despite years of overall increased screening rates and additional screening options, do colon cancer screening rates remain lower among Appalachian Kentucky men than women?

Behavior Over Time Graph:



Figure 4: Colon cancer screening behaviors over time.

Causal Loop Diagram:

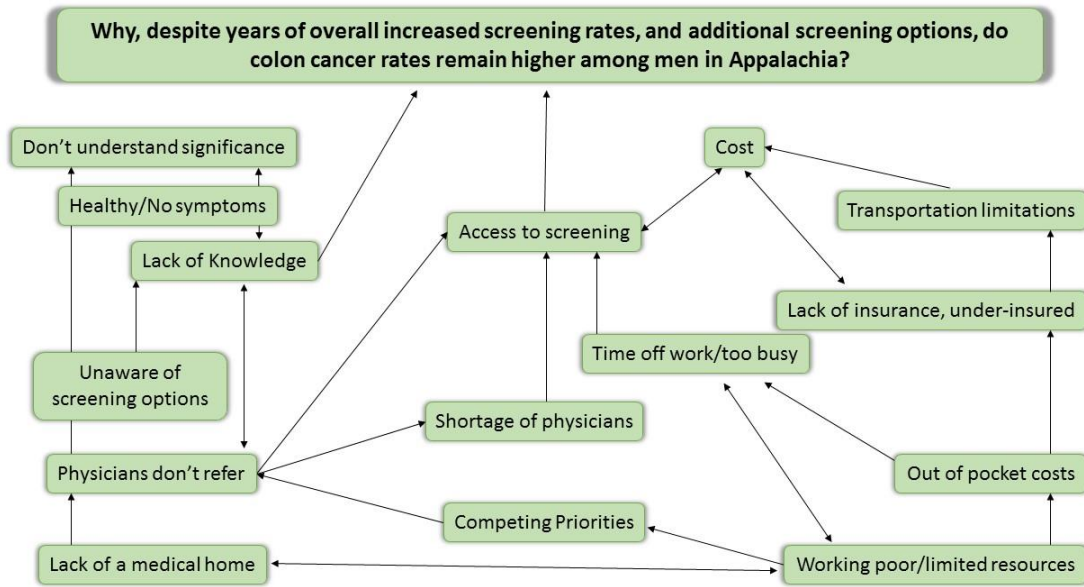


Figure 5: Causal Loop Diagram supporting problem statement.

10 Essential Public Health Services/National Goals Supported:

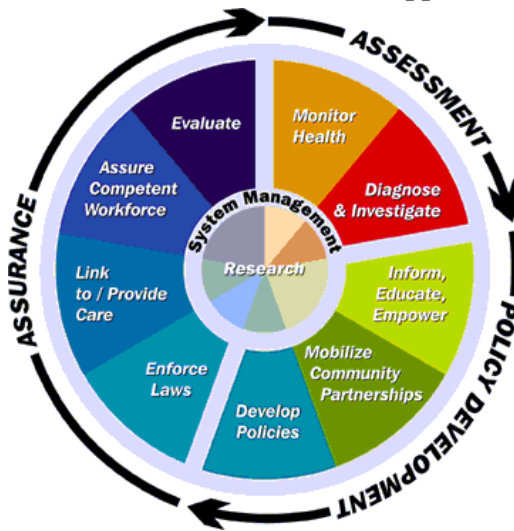


Figure 6: From CDC National Public Health Performance Standards Program

Our project addressed the following goals of the 10 Essential Public Health Services:

Essential Health Service #1:

2015-2016 Change Master Projects

Kentucky Public Health Leadership Institute

Monitor Health

Our group wanted to identify and attempt to solve the issue of men not being screened for colon cancer, leading to higher colon cancer incidence and mortality. Our survey sought to find these barriers in order to address them in future colon cancer screening messaging in order to gain higher screening rates and lower incidence and mortality rates.

Essential Health Service #3:

Inform, Educate, and Empower

While conducting our interviews, we realized most all of the men were unfamiliar with the FIT (Fecal Immunochemical Test) to screen for colon cancer. We took the opportunity to educate those men on the test and its availability in their area. We also plan to use the results of our research for future projects with the Kentucky Cancer Program to inform, educate, and empower men to be screened for colon cancer.

Essential Health Service #10:

Research

Our group created a survey to ask of men in a focus group or interview setting to determine why they had not been screened for colon cancer, important key messages to use when educating men to be screened, and which venue to place the messages that would best catch their attention. This information gave us new insights into this health issue and reference for future colon cancer screening education aimed at men.

PROJECT OBJECTIVES/DESCRIPTION/DELIVERABLES:

Project Objectives:

The following are the objectives of this project:

1. Evaluate Appalachian Kentucky Men's reactions to commonly used colon cancer screening small and mass media messages.
2. Determine preferred message modalities among Appalachian Kentucky men.

Deliverables:

Our change master project will deliver the following:

1. Results from focus groups and one-on-one interviews with Appalachian Kentucky men who are at, or near the recommended colon cancer screening age guideline.
2. Recommendations for message content to motivate Appalachian Kentucky men to seek colon cancer screening.
3. Recommendations for preferred format of colon cancer screening key messages of Appalachian Kentucky men.
4. Recommendations for preferred venues or methods of dissemination of key colon cancer screening messages for Appalachian Kentucky men.

METHODOLOGY:

In trying to answer our problem statement, our team decided to focus on colon cancer messaging and which of those messages would motivate a man to be screened. We narrowed our interview subjects to males ages 40-75 within the Kentucky River, Cumberland Valley, and Lake Cumberland Area Development Districts. The team assembled a variety of currently used and available colon cancer screening messages of various formats. These formats included posters, flyers, television ads, radio ads, and pamphlets. These materials came from organizations such as the Center for Disease Control, the Kentucky Cancer Program, and the HSC Public Health Agency in Ireland.

Working with the University of Kentucky's Rural Cancer Prevention Center, we obtained IRB approval for our research. We reviewed previous key informant surveys conducted through the Kentucky Cancer Program to create a survey for what we intended to be focus groups (see Appendix 1). Those quickly turned into interviews when we realized how difficult it was to get a group of men together and agreeable to do a focus group on colon cancer screening. In our interviews, we asked the men basic demographic information, colon cancer screenings with which they were familiar, and whether or not they had been screened for colon cancer. If they had not been screened, we gave them a list of reasons from which to choose as to why they hadn't been screened.

The second half of the interview focused on the colon cancer screening messages in the various formats. They were given 4 posters, 2 television ads, 1 radio ad, and 1 pamphlet to review and give their opinions. They were asked which messages were the most and least helpful/useful/beneficial/important. One question we felt would be very helpful was concerning which key messages about colon cancer they felt was important to them to be listed on these materials. We also asked the men their opinions on the formats in which these materials should come and the best place/venue to place them that would catch their attention. Last, we felt it was important to ask them any recommendations or suggestions they may have to organizations such as the Kentucky Cancer Program to successfully distribute these materials to men.

RESULTS:

Our group conducted 14 face-to-face interviews with our target population. The average age interviewed was 48.14 years old. All of the men were Caucasian and had, at least, a high school education. As far as types of colon cancer screenings, the entire group of men was familiar with the colonoscopy. However, only two were familiar with the FIT and only one familiar with the FOBT screening tests.

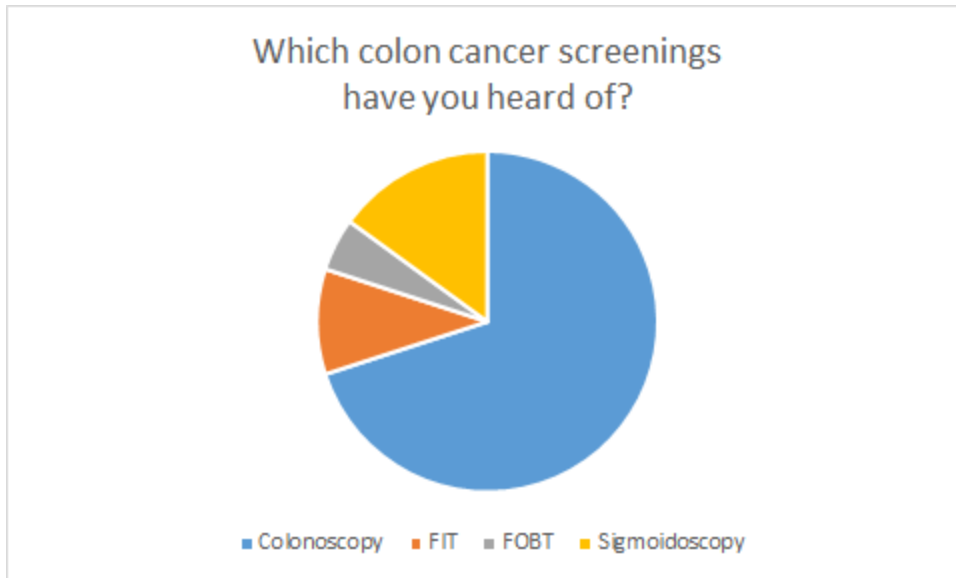


Figure 7: Familiarity with different types of colon cancer tests.

Of those interviewed, five had never been screened for colon cancer. The reasons they cited most often were because they were “not aware of the screening recommendation,” and they were “afraid the test would be painful.” “No insurance,” and “lack of transportation” were two reasons that were not chosen by any of the men.

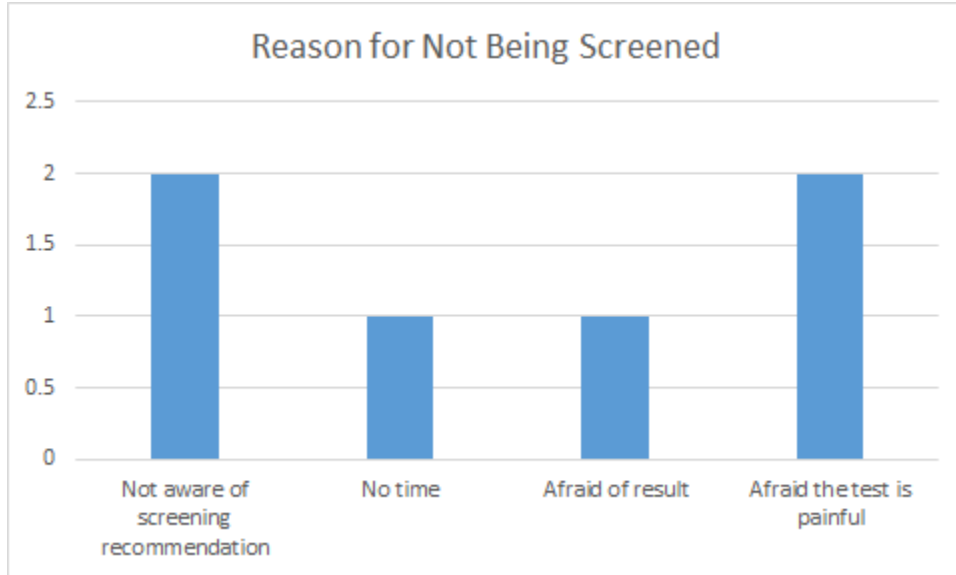


Figure 8: Barriers to colon cancer screening.

Of the messages shown to the men, most all were drawn to the Center for Disease Control (CDC) television ad (and poster) of Terrence Howard (see figure 9)⁶. Some of the men believed the television ad was more personal and relatable. They thought the video was more interesting and attention-grabbing than reading everything written on a

poster. The men felt the pamphlet and other materials with mostly writing were the least effective.



Figure 9: CDC Screen for Life poster, accessed March 2016.

When asked the best possible venue to place colon cancer screening messages to catch the attention of the target population, almost all said social media, more specifically, Facebook.

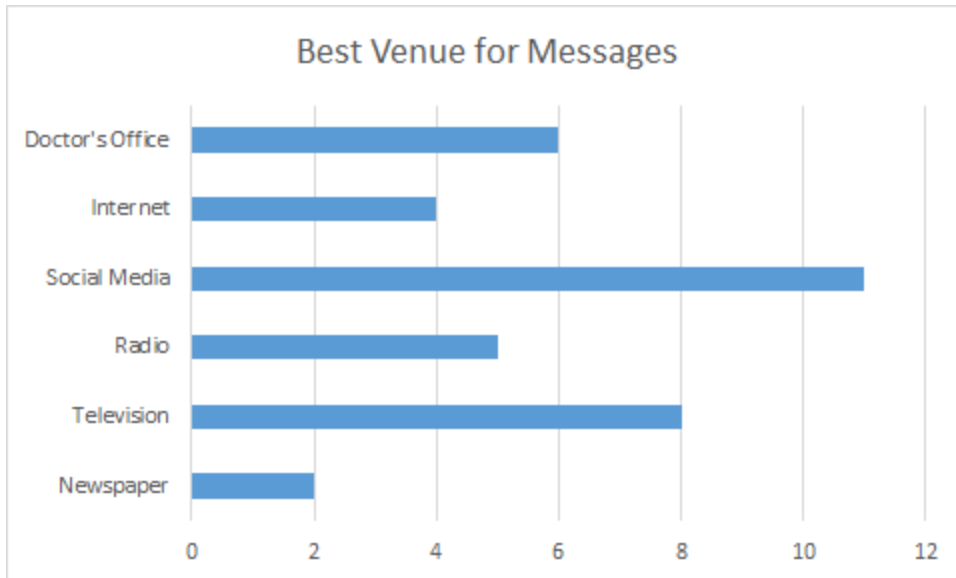


Figure 10: Preferred venues for message dissemination.

Our group also asked of the men questions relating to key messages they felt would be important to use when convincing men to be screened for colon cancer. We supplied a list of key messages for each man to rank on a scale of 1 of 10, with 10 being very important/very helpful. The top answer, with a rank of 9.64 out of 10, was the message “everyone age 50 and older should be screened for colorectal cancer”. Next, with a rank of 9.5 out of 10, was the message “people with a family history of cancer should talk to their doctor about being screened earlier.”

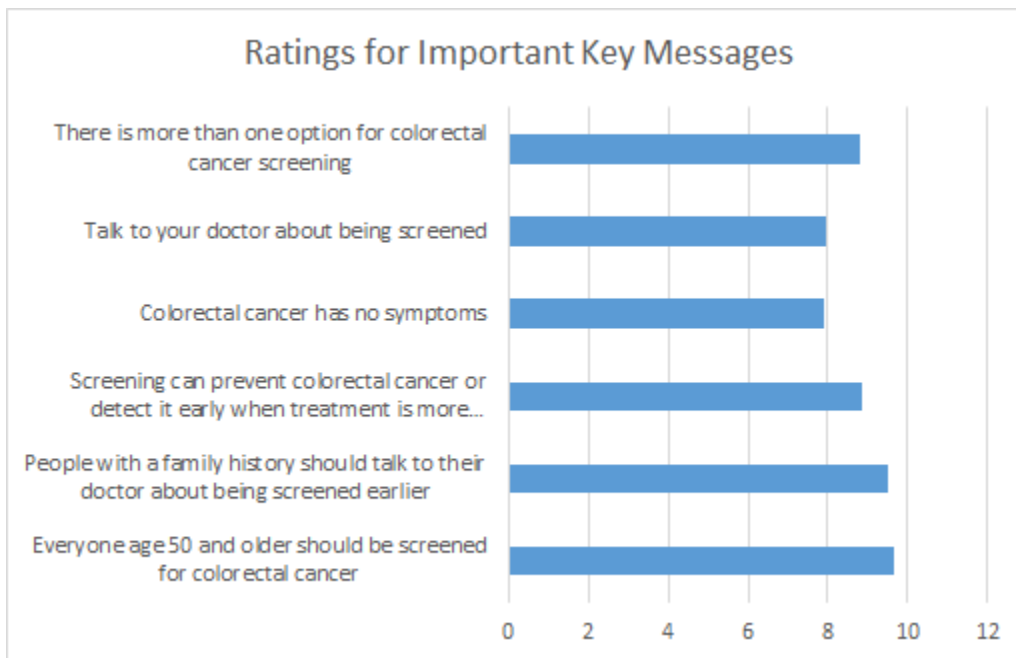


Figure 11: Colon cancer key message ratings.

The men were asked to identify the top two or three messages that were discussed during the interview. New screening techniques and the fact that colon cancer is preventable by removing polyps were the top two answers.

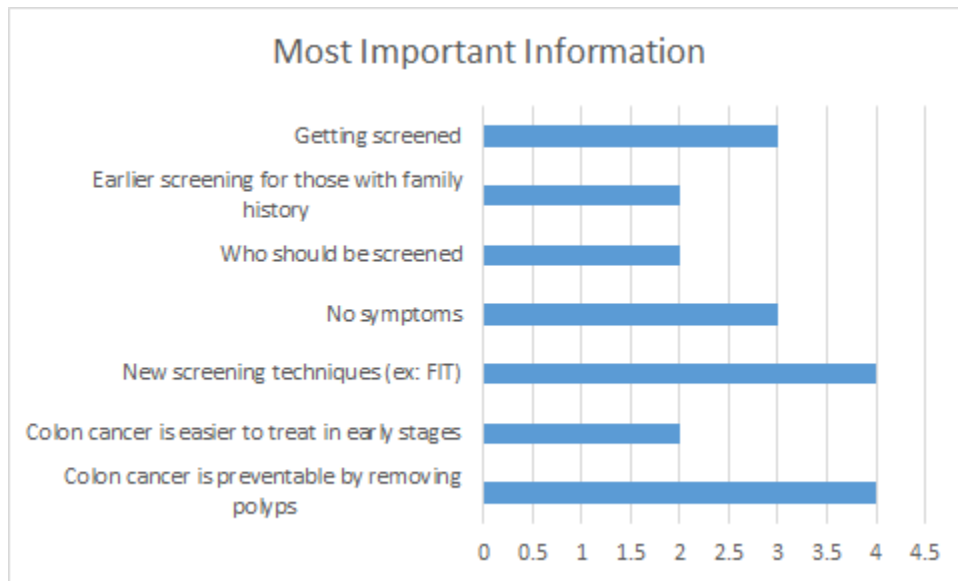


Figure 12: Most important information contained in messaging.

Our group asked the men any suggestions or recommendations they may have for organizations such as the Kentucky Cancer Program to improve the use of colon cancer screening materials specifically among men in Appalachia Kentucky. Six of the men mentioned using work sites as a place to disseminate the information, either through employee health fairs, attaching to pay stubs, or placing on company bulletin boards. Five of the men suggested going through the faith-based community, or churches, to inform men of the need of colon cancer screening. Many also believed the materials should use personal stories of people they may know (either local or celebrities).

CONCLUSIONS and RECOMMENDATIONS:

Although our sample size was small, all of the interview subjects preferred the Terrence Howard video. Our “Dynamic Duo” project team believes that Appalachian Kentucky men may be better motivated to seek colon cancer screening when presented screening information in a storytelling style through video format, and disseminated via social media (Facebook), Internet, and television ads. We also suggest a more comprehensive education/awareness campaign using this style of delivery and venue to disseminate additional colon cancer screening option information, such as FIT. Most of the men were very interested in this method of screening due to its less invasive nature. Additionally, taking the message to men in a smaller group or face-to-face setting was well received by interviewees and several suggested we (the interviewers/KCP) find opportunities to deliver the messages in these types of venues, such as faith-based and work sites.

Limitations:

Our project includes a small pool of interviewees, but extensive information was retrieved from each one due to our collection method. Our team also recommends we continue to gather data via interviews and small focus groups until IRB approval expires. This will expose the project to information from a more varied demographic background. As additional insight becomes apparent through supplemental interviews, we can further fine-tune message content and delivery points.

LEADERSHIP DEVELOPMENT OPPORTUNITIES:

Mindy Rogers

Our team's change master project has been an valuable learning exercise in flexibility, patience and perseverance. With only two members on our team, we had to completely abandon our original project idea due to lack of resources: time, manpower, and appropriate network connections to do assessment and then, implementation. It was difficult to make the decision to change direction because of the effort invested and the expectation from others that our focus would be on the original topic, youth tobacco use. However, once we made the decision to alter our project focus, the path moving forward became clear and I was excited about the potential of our new direction! The Summits were enlightening to me. I enjoyed being exposed to public health workers from across the state who provided a broad range of experiences and attitudes. KPHLI demonstrated to me that to be effect, the amount of knowledge that public health requires is vast and should be varied across many sectors (government, provider, community, educators, etc.). Cynthia provided excellent presentations and the curriculum was well organized. I also enjoyed meeting and working with our mentor, Crissy. My views of public health and the way I will approach projects are all enhanced by the KPHLI experience.

Ashley Teague

Coming in to KPHLI, I am not sure I knew what to expect. The Summits and the profiles we completed opened my eyes to a few new aspects of myself I had never realized and reinforced other aspects (like the fact I know I am still bad with confrontation!). The best part of the experience has definitely been our Change Master Project. This is the first time my partner and I could choose what we wanted to research and I think the outcome has been incredibly positive. It has been difficult only having two team members and the fact we changed our focus more than mid-way through the year. However, I believe it worked out for the best and our project is going to help us in tremendous ways to educate the community on cancer prevention in the future. I believe KPHLI has helped me become a better leader if by nothing else showing me who I am and of what I am capable.

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Appendix 1

Focus Group Questions

1. Age: _____
2. Race: _____
3. Education Level : _____
4. Which of the following types of colon cancer screening have you heard of?
 Colonoscopy
 FIT
 FOBT
 Sigmoidoscopy
5. Have you ever received a colon cancer screening? No Yes
6. If not, why? (pick all that apply)
 Not aware of screening recommendation
 No time
 Afraid of the result
 Afraid the test is painful
 No money or insurance
 Lack of transportation
Other (please write in any response that you would like)

Please answer the following questions based on the TV, radio, and print messages you are shown:

1. In general, which messages do you find the most helpful/useful/beneficial/important?

2. In general, which messages do you find the least helpful/useful/beneficial/important?

3. Is there any other important information that should be included?
-
-
-
4. How important or helpful are each of these key messages listed to you? Rate each one listed below on a scale of 1 to 10 with 1 being very unimportant/not helpful and 10 being very important/very helpful.
- Everyone age 50 and older should be screened for colorectal cancer.
 - People with a family history of cancer should talk to their doctor about being screened earlier.
 - Screening can prevent colorectal cancer or detect it early when treatment is more successful.
 - Colorectal cancer has no symptoms.
 - Talk to your doctor about being screened.
 - There is more than one option for colorectal cancer screening.
5. Of all the things we have talked about, what are the 2 or 3 things you feel are the most important?
-
-
-
6. Which format did you like better? Why?
-
-
-
7. Is there a format that would work better?
-
-
-
8. If these ads were developed, where would be the best place/venue to place them that would catch your attention?
- Newspaper
 - Television
 - Radio
 - Social Media (be specific): _____
 - Internet
 - Doctor's Office
9. What recommendations or suggestions would have that might improve the use of public awareness materials?
-
-
-

10. What recommendations or suggestions would you give to an organization like the Kentucky Cancer Program- who was planning on distributing these materials to you or other men in your community to increase awareness of colorectal cancer and the importance of screening?

11. Is there anything that we did not talk about that you think is important?
