



HHS Public Access

Author manuscript

J Cancer Educ. Author manuscript; available in PMC 2017 August 24.

Published in final edited form as:

J Cancer Educ. 2017 March ; 32(1): 125–134. doi:10.1007/s13187-015-0914-0.

Identifying community perspectives for a lung cancer screening awareness campaign in Appalachia Kentucky: The Terminate Lung Cancer (TLC) Study

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Abstract

Introduction—Lung cancer screening with low-dose computed tomography (LDCT) scan is now covered by Centers for Medicare & Medicaid Services following an evidence-based recommendation, but a shared decision making process should inform patients of risks and limitations. An awareness campaign promoting LDCT screenings is an opportunity to elicit patient engagement with health providers about the risks and benefits. Focus groups representing three regions of Appalachian Kentucky known for high lung cancer rates discussed development of a lung cancer screening campaign. Recommendations included messaging content, appeals or design, campaign implementation, and trusted information or communication sources.

Methods—Community health workers (CHWs) from three Eastern Kentucky regions recruited individuals from their local communities using established client files. CHWs hosted six total focus groups (7–11 participants each) using questions guided by the Communication-Persuasion Matrix framework. All sessions were recorded and transcribed for independent content analysis.

Results—A total of fifty-four individuals (61.1% female; >55 pack year history) participated. Prior to discussion, most participants had not heard of lung cancer screening. Cited needs for content of a campaign included benefits of early detection and payment information. Messages considered most persuasive were those that include: personal testimony, messages of hope, prolonged life, and an emphasis on family and the ambition to survive. Having information come from one's family doctor or specialty provider was considered important to message communication.

Conclusions—Messages about survivorship, family, and prolonged life should be considered in lung cancer screening awareness campaigns. Our results provide community input about messages regarding screening options.

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Financial Disclosures: None.

Keywords

Lung cancer; Screening; Prevention; Qualitative; Focus Groups; Appalachia

Introduction

Lung cancer accounts for 13.5% of all new cancer cases in the United States, with only a 16.8% 5-year survival rate [1]. It remains the leading cause of cancer death at a rate of 48.4 per 100,000 US population, exceeding the rate of next three leading causes of cancer deaths combined (colorectal, breast and prostate cancer) [1]. Kentucky reports the highest national rates of lung cancer incidence and death (93.1 and 88.3 per 100,000, respectively) [2], with the Eastern (Appalachian) part of the state disproportionately affected [3]. While age is a leading risk factor for lung cancer, other modifiable risk factors include smoking, second-hand smoke, radon exposure, and exposure to environmental carcinogens, such as asbestos [4]. Areas of high lung cancer rates parallel areas with a high prevalence of these risk factors, especially smoking. For example, recent reports rank Kentucky and West Virginia as having the highest national rates of smoking (29% and 28.6% of the adult state population, respectively) [5] and lung cancer rates [2], emphasizing the importance of smoking cessation to reduce lung cancer rates.

As with other forms of cancer, the importance of early detection cannot be overstated: Most patients diagnosed with lung cancer today already have advanced disease (40% are stage IV, 30% are stage III); only 15% of lung cancers are detected prior to spread. The 5-year survival rate is only 4% if detected at these later stages of spread, compared to 54% when found still localized, with early detection [4].

The first lung cancer screening recommendation in the US was based on pivotal findings from the National Lung Screening Trial (NLST) [6]. The NLST was a large multi-year randomized-controlled trial that found a 16% relative reduction in lung cancer deaths among individuals completing an annual screening low-dose chest CT scan (LDCT) compared to those receiving annual chest radiographs. The United States Preventive Services Task Force (USPSTF) published a grade B recommendation for lung cancer screening with chest LDCT on December 31, 2013 based on the NLST findings [7].

Lung cancer screening with chest LDCTs has recognized risks and limitations that patients need to discuss with their provider [6]. In fact, one of the CMS requirements when ordering a chest LDCT for lung cancer screening is documentation that a shared decision making process was conducted and recorded in the medical record [8]. This process is meant to ensure that the risks, benefits, and limitations of LDCT screening are conveyed to the patient and that the patient has an opportunity to ask questions before deciding to order a screening LDCT. An awareness campaign to motivate patients to approach their health providers about their options for LDCT is an important means of increasing patient engagement, and would help address the concern among providers that a lack of patient knowledge about LDCT presents a major barrier to LDCT screening [9].

The Terminate Lung Cancer (TLC) study is an ongoing program to develop a community awareness campaign about the importance of lung cancer screening in the high-need area of Eastern Kentucky. To develop the content and messaging of the campaign, we desired a community-engaged approach that would be based on opinions of local individuals meeting the criteria to be of high-risk for lung cancer. Here, we report the unique perspectives of screening-eligible individuals as derived from regional Eastern Kentucky focus groups, on what might make an effective message about lung cancer screening, and what potential venues for delivering that information might be.

Methods

Setting

This study was conducted in three Kentucky Appalachian regions (communities in and around Morehead, Hazard, and Pikeville, KY, see Figure S1) representing an area that, along with the health disparities mentioned earlier, is characterized by other significant behavioral, educational, and economic disparities (see Table 1).

Six focus groups (two per region) were conducted in October of 2014 with the goal of eliciting perspectives about lung cancer, lung cancer screening, and salient and trusted messages about screening. Six focus groups were chosen to ensure we had equal representation from the entire Eastern Kentucky region. From within each region, two focus groups were chosen as an initial effort to assess for congruence of messages and themes. Since messages and themes were highly similar and congruent across the six focus groups, as will be discussed in the results section, no further focus groups were deemed necessary. Community members participating in the focus groups met criteria for lung cancer screening and thus were considered high-risk for lung cancer. Three community health workers (CHW) from Kentucky Homeplace, a well-established program, were trained by investigators to conduct and facilitate the focus groups. Each CHW lives in, and is part of, the community in each of the three general Eastern Kentucky areas where focus group members were recruited and sessions were conducted. The Kentucky Homeplace partnership and known CHWs ensured that participants felt unthreatened and open to expressing their feelings.

All study procedures were approved by the University of Kentucky Institutional Review Board.

Sample and recruitment

Individuals who met criteria for lung cancer screening based on CMS guidelines [8] were identified through a randomly ordered list of Kentucky Homeplace clients for focus group participation. This included men and women 55–77 years of age with at least 30 pack-years of smoking; either former smokers (quit in last 15 years), or current smokers. The Kentucky Homeplace data manager provided CHWs with a randomly ordered list of clients for their respective regions, for a total of 240 clients. The CHWs made contacted potential participants by phone to assess for eligibility and interest in participating in one of the focus

groups. With two focus groups per region, the goal was to have 60 total participants (10 in each of 6 focus groups).

Framework

We chose to apply the Communication-Persuasion Matrix (CPM) framework to guide the framing questions for the facilitator during the focus group sessions [10]. The CPM has been used predominately in the field of advertising as an input-output matrix that is malleable to achieve desired change. The CPM “input” factors contain five separate domains: content, appeal, design and implementation, sources, and communication channels.

Focus groups and data collection

The focus groups were hosted in convenient community locations within each region at a time of the day that was amenable to participants. Upon arrival, the CHW and one research team member greeted the focus group participants and completed the informed consent process. The researcher then began an audio recording after obtaining permission to do so from the participants, and took a seat away from the group to take notes and record non-verbal cues and other communication. After introductions, the CHW, acting as facilitator, discussed general rules about the session and initiated conversation with an open-ended question asking the group what they knew about lung cancer and screening. After a period of discussion, the CHW provided an overview about lung cancer screening. Specifically, CHWs read through a 2-page fact sheet that contained information specific to: when screening is done, the criteria for whom should have a screening, what a CT scan involves, and the benefits (greater success of treatment, more treatment options if cancer is identified in early stages) and harms (false alarms, over diagnosis, radiation risks) of screening. It ended with pragmatic information about how to arrange for a screening and (the then current status of) insurance coverage for the CT scan, as well as a statement that the most important thing one can do lower the chance of dying is to stop smoking. The intention of this brief educational overview was not to impact core attitudes or beliefs about lung cancer screening, but rather, to inform the groups about the facts in effort to have more enlightened discussions about the topic. Once this was complete, the participants were asked about their willingness to have a lung cancer screening themselves, as this question was thought to bring out any biasing opinions that remain after the education session. Groups were then asked about what they would consider to be important messages about a lung cancer screening campaign guided by the CPM framing questions [10]. Each focus group session lasted about 120 minutes. Refreshments were provided and afterward, each participant received \$40 for their participation.

Data processing and analysis

All recordings were transcribed and two trained researchers independently reviewed the transcripts in detail. The content was analyzed and categorized for each of the five thematic categories of the CPM described above in development of the codebook. Content was also analyzed for the understanding of, and personal willingness to undergo lung cancer screening before and after the brief educational session. Reviewers had repeated discussions about the interpretations of the data that resulted in several iterations of the codebook, enhancing the rigor of the process.

No qualitative data analysis software was used, but additional steps were taken to ensure the rigor, reliability, and validity of the data analysis. First, the research staff provided hand-written notes to supplement all audio recordings. These notes added non-verbal cues in the analyses. Second, focus group results were subsequently reviewed and confirmed as accurate by a six-member advisory board, comprised of participants from each focus group. Finally, all transcripts were coded by two independent reviewers to ensure congruence in coding. Frequency counts for utterances were cross-checked for consistency once each reviewer had completed their full analysis.

Results

Demographics

Seventy-five Kentucky Homeplace clients were contacted by the CHWs. Of these, 63 (87.5%) were eligible and agreed to participate in the focus groups. Among the individuals that were invited to the focus groups, 54 (n= 16 from Pikeville region; n=21 from Hazard region; n=17 from Morehead region) actually attended and completed the informed consent process, representing a 72% recruitment rate.

Focus group participants (61.1% female) reported an average age of 61.8 years with a 55.3 pack-year smoking history among current smokers and 61.7 pack-years among past smokers. Sixty-three percent were currently smoking and the remaining 37% had quit smoking less than 15 years ago. All participants were white and only 15.4% had higher than a high school/GED education. Table 2 presents other participant demographics.

Focus Group Results

Knowledge and opinions about lung cancer screening before and after focus group educational sessions, as well as results by each domain of the CPM are shown in Table 3, which lists common utterances (listed in frequency order) and exemplary quotations. Items at the top of each list were mentioned at least four times, or three times in the case of the 'message appeals' list.

Knowledge and willingness to have lung cancer screening

Prior to the educational session using the 2-page fact sheet, the overwhelming majority of participants had never heard of lung cancer screening. There was little understanding about the difference between diagnostic and screening tests. Despite this, many were supportive and expressed a desire to complete screening themselves. The most common answers when asked about what they considered to be a lung cancer screening test included "breathing tests", x-rays, and a variety of imaging tests such as diagnostic CT, PET or bone scans, and ultrasound. There was a general understanding about risk factors related to lung cancer that included smoking and exposure to coal mining. After the educational session about lung cancer screening, a majority stated that they would consider having lung cancer screening themselves, except for two individuals with strong faith-based opinions.

Message content

We asked focus group participants, “Based on what you heard today, what is the most important message that needs to be relayed to encourage (you) to be screened for lung cancer?” The primary response across all focus groups was the importance and benefits of early detection; specifically, that lung cancer screening is prevention and it can bring a “peace of mind.” Messages should also include statements that the LDCT scan is covered by most health insurance companies &/or provide information about screening costs.

Message appeals

When asked, “What things will resonate with folks in terms of what benefits them or what they get out of it?,” there was strong consensus among participants of the importance of some sort of testimony, such as seeing a picture of someone who had survived lung cancer. Another important consideration is linking the message to family, such as grandparents wanting to see their grandchildren grow up. Cost of the LDCT, again, was considered an important message aspect.

Message design and implementation

The focus groups were then probed with the question “If you were designing an ad about lung cancer screening, what things about the ad would make it trustworthy, engaging, and relevant?” The participants again expressed the importance of testimony and the message of “saved by screening”. Graphic television ads were brought up in several groups, but a majority of participants were against “scare tactics”. The importance of linking messages back to family was also reiterated across the focus groups.

Message sources

Participants were then asked, “What or who would you suggest would be the best way to deliver the message that would be considered trustworthy and relevant?” Many participants again mentioned the inclusion of a visual or testimony about surviving lung cancer. The predominant discussion concerned the importance of receiving the screening from one’s family doctor or specialty provider.

Message communication channels

Focus group participants were asked, “What channels or ways are best to get the message out (about lung cancer screening) or advertise it?” Predominant answers included flyers or information in doctor offices/waiting rooms, during annual exams, internet search engines (e.g., Google, Bing), flyers in grocery stores, television, newspaper, and radio advertisements, direct mail, and various health websites (e.g., WebMD, Mayo Clinic).

Discussion

Disseminating and implementing evidence into the community and in clinical practice has historically lagged from the time research is completed to the time recommendations or guidelines are published [11], and the uptake of new lung cancer screening recommendations is not positioned to break this trend. The NLST study ended in 2009 and

was published in the *New England Journal of Medicine* in 2011 [6]. Over 2 years later, the USPSTF published its Grade B recommendations for the use of chest LDCT for lung cancer screening [7]. CMS then published its final decision rule for LDCT coverage in February 2015 [8], over 4 years from the completion of the NLST study. By developing methods and messages that would resonate with high-risk Appalachia Kentuckians about the new LDCT screening opportunities, the TLC campaign hopes to surmount this sluggish start to the incorporation of LDCT screening recommendations in those practices where these patients are most likely to be seen.

Like most screening tests and programs, there are risks associated with performing a chest LDCT for screening purposes. In April 2014, the Medicare Evidence Development and Coverage Advisory Committee (MEDCAC), a CMS advisory committee that reviews the evidence and provides recommendations for coverage, filed a report stating it had low confidence that LDCT screening would confer net benefits compared to potential risks [12]. This decision was based on several salient issues, including concerns that decisions were based on a single study, that discrepancies in the results existed in smaller European studies, and that the NLST study reported a 96.4% false-positive rate, with 72.1% requiring further work-up (primarily repeat imaging, but some invasive bronchoscopy, biopsies, and surgical procedures were also necessitated) [6]. With the CMS confirming that it will cover chest LDCTs for lung cancer screening, it is paramount that individuals fully understand the risks and benefits, and that the screening fully meet CMS specific requirements [8]. Table S1 provides a crosswalk between the USPSTF recommendations and the CMS requirements. Notable among these is the CMS requirement for documentation that a shared decision making process occur with the patient prior to LDCT screening – a requirement that we fully support [11]. Indeed the TLC campaign grew out of our need to assure that shared decision making occurs, and to craft messages in a way that encourages a conversation about appropriateness of LDCT, rather than simply encouraging patients to seek a screening test.

Our results indicate that effective messages about lung cancer screening would benefit from providing an emotional connection to the message, perhaps by including testimony and/or photos. However, it was clear that “scare tactics” were not perceived to be effective by participants. Many were aware of the smoking cessation campaign by the Centers for Disease Control and Prevention (CDC) called *Tips from Former Smokers (Tips)* that has used vivid television ads since 2012 of smokers with associated complications, such as a person speaking with a tracheostomy [13]. While a majority of the focus groups participants opposed these tactics, their awareness of the *Tips* campaign may speak to its effectiveness.

Frequently mentioned was the importance of spreading a message of hope, survivorship, and of prolonged life – and the need to link such messages to family and the ambition to survive for their loved ones, as well as for oneself. Since the focus group participants were all over the age of 55, this message was related to discussions about living to see their children and grandchildren grow up. In a Pew Research Center large national survey of those ages 65 and older, seven-in-ten respondents said they were enjoying more time with their family and 28% cited the chance to spend more time with family as the best benefit of growing old. An additional 25% said that above all, they value time with their grandchildren [14]. Our focus group responses similarly reflected the value of spending time with family, but also the

importance of other social groups. Prior research has also shown that older rural adults, who sometimes lack family members of similar age and with similar health experiences, often rely on friends as a primary source of health information [15]. This reliance on family, friends, and – perhaps most importantly – health professionals, may reflect a tendency by older adults to place greater amount of trust in a person with whom they are able to actively discuss their health as opposed to a nonliving source [16].

Participants considered health providers to be one of the most trustworthy, reliable sources from which to obtain and discuss screening information. Previous research has found having a health care provider to be the most significant predictor for colorectal, breast, and cervical cancer screening, regardless of insurance status and other socioeconomic factors [17–19].

Focus group participants provided valuable insight about the various venues and channels that might be used to disseminate information about lung cancer screening (Table 3). We were slightly surprised about the frequent mention of the internet from this older and rural Eastern Kentucky sample, where there are noted limitations in technology. Recent reports show that the state of Kentucky has only 18 (of 120) “nationally competitive” counties in terms of internet speed, and this number comprises only 50% of the state’s population [20]. Indeed, a full 23% of rural (and only 1.5% of urban) Kentuckians are without any internet access [21]. This concern points to the larger need to disseminate lung cancer screening messages through a multi-modal approach. To facilitate our awareness campaign, the TLC study team has mailed packets about the USPSTF and CMS recommendations to targeted health professionals practicing in Eastern Kentucky, conducted community roundtable meetings for providers, and developed a TLC website (<http://www.terminatelungcancer.org>) to serve as a resource for providers and patients seeking to learn more about LDCT screening, as well as smoking cessation.

Limitations

The location of our study may limit the generalizability of the results to other regions in the US. Approximately 88.5% of Kentucky residents in 2013 were classified as White alone, not Hispanic or Latino, compared to 62.6% of the US population. The white demographic is even more prevalent in our study regions of Clay (94.4%), Pike (98%) and Rowan (96%) counties [22]. Areas of the country with differing racial/ethnic cultures may not find the messages and modes of dissemination identified here to be as effective. Additional studies are needed to assess this possibility, however since this study was performed in a region with the highest lung cancer death rates in the US [2], a number of other US regions should still benefit from our findings. Our study may in fact highlight rural and urban differences in the attributes that lead to campaign effectiveness, and future research that would make this direct comparison is certainly warranted. For example, evidence from a large national online survey found that the graphic and emotionally charged *Tips* smoking cessation campaign led to significant changes in beliefs about smoking-related risks, increased worries about health, and consequent changes in intention to quit [23]. Prior research on attitudes toward smoking cessation campaigns from the Eastern Kentucky region have also found an advantage of negative emotional advertising [24]. On the other hand, advertising that is seen as an “attack” on smokers (in that it concentrates its message toward the smoker, rather than the

smoke) may be seen as placing blame, and is not well received in rural communities with high smoking prevalence and historical and economic ties to tobacco farming [24].

Conclusions

Messages of testimony, hope, survival, and a connection to family are thematically important in developing a lung cancer screening campaign for high risk individuals. The TLC study team plans to utilize the focus group suggestions to disseminate these campaign messages through numerous venues. These will likely include postcards in healthcare provider/clinic waiting rooms, in retail stores, on the internet, local newspapers, and possibly direct mailers. Through these efforts, we hope to facilitate patient-provider discussion about the new lung cancer screening recommendations; and in so doing, make a notable impact on the devastating toll that lung cancer is having in Appalachia Kentucky.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

Acknowledgments

The authors wish to thank the focus group members, and especially those that served in our Community Advisory Board for their continued work with us in developing TLC materials: Patsy Wagner, Rick Davis, Brenda Riggsby, Mary Gail Thompson, and Marsha Bruner.

This research was made possible through a collaboration between the Appalachian Osteopathic Post-Graduate Training Consortium, University of Pikeville, the Kentucky Cancer Consortium, the Center of Excellence in Rural Health, the University of Kentucky College of Public Health, and the UK College of Medicine. These partners brought expertise in community engagement for the study's targeted communities and leadership in lung cancer education and outreach. We also want to thank our community hospital partners including St. Claire Regional Medical Center, Appalachia Regional Hospital in Hazard, and Pikeville Medical Center.

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Table 1

Health Statistics of the Terminate Lung Cancer Focus Group Regions

	Pikeville Region [*]	Hazard Region [*]	Morehead Region [*]	Kentucky	US
Estimated Total Population ^{†,‡}	138,374	123,067	118,309	4,395,295	318,857,056
High School Graduation (adults age 25 or older) ^{§,}	69.3%	63.4%	70.4%	82.0%	81.0%
Median household income ^{¶,‡}	\$28,111	\$25,322	\$26,210	\$41,576	\$53,046
Prevalence of Smoking ^{‡,‡‡}	33.3%	33.4%	30.0%	28.0%	17.8%
Premature death (Number of years of potential life lost prior to age 75 per 100,000 population) ^{†,‡,‡‡}	18,282	16,569	12,093	7,562	6,976
Cancer Deaths (age-adjusted per 100,000 population) ^{§§,‡‡}					
All cancers	240.8	251.9	224.4	212.0	171.2
Lung and Bronchus	95.5	97.0	77.8	75.0	47.2

^{*} Pikeville Region includes Pike, Letcher, Floyd, Martin counties; Hazard Region includes Perry, Knott, Harlan, Leslie, Breathitt, Clay, Owsley counties; Morehead Region includes Rowan, Fleming, Lewis, Carter, Elliott, Morgan, Menifee, Bath counties.

Data sources:

[†] Population Division, U.S. Census Bureau,

[‡] <http://quickfacts.census.gov>,

^{§,||} American Community Survey, U.S. Census Bureau,

[¶] National Center for Education Statistics,

[#] Behavioral Risk Factor Surveillance System,

^{**} Centers for Disease Control and Prevention: fast facts,

^{††} Kentucky State Data Center - Vital Statistics,

^{‡‡} National Cancer Institute: Surveillance, Epidemiology, and End Results (SEER) Program's Stat Fact Sheets,

^{§§} Kentucky Cancer Registry

Table 2

Terminate Lung Cancer Focus Group Demographics (N=54)

	n	%
Smoking status		
. Current smokers	34	63.0%
. Past smokers	20	37.0%
Average years quit smoking[*], mean (SD)	7.4	(3.8)
Pack years, mean (SD)		
. Current smokers	55.3	(20.5)
. Past smoker	61.7	(34.4)
Age, mean (SD)	61.76	(4.8)
Gender		
. Male	21	38.8%
. Female	33	61.1%
Race/Ethnicity		
. White	54	100%
Marital Status		
. Married	37	71.2%
. Divorced	6	11.5%
. Widowed	5	9.6%
. Separated	2	3.8%
. Never married	2	3.8%
Number of children		
. None	35	67.3%
. One	5	9.6%
. Two	6	11.5%
. Three or more	6	11.5%
Education level		
. Grades 1–8	10	19.2%
. Grade 9–11	11	21.2%
. High school/GED	23	44.2%
. Some college	8	15.4%
. College or above	0	0%
Employment status		
. Employed	8	15.4%
. No work >1 year	1	1.9%
. Homemaker	2	3.8%
. Retired	26	50.0%
. Unable to work	15	28.8%

	n	%
General health status		
. Excellent/Very good	4	7.7%
. Good	12	23.1%
. Fair	20	38.5%
. Poor	16	30.8%

*
For past smokers only

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Table 3

Focus Group Results: High Frequency Utterances and Example Quotations

I. Understanding of, Disposition toward screening		
Domain/ Framing Question	Utterances in order of highest frequency	Example quotation
Assess <u>baseline</u> understanding regarding lung cancer screening	Breathing test is screening for lung cancer Computed Tomography (CT) scan-diagnostic X-ray "Yes" would have done/will do screening	<i>"I think you should (have a chest LDCT). Yeah like on my husband, OK, he never had a CT scan, he had x-rays. They said it was emphysema. So do you have to cough up blood or lose weight to know you've got cancer? Or is that the symptoms? Is there a difference?"</i>
"Can you tell me what you have heard about screening for lung cancer?"	All should be screened, especially if one smokes Never heard of lung cancer screening Smoking is blamed for more than it causes What does pack years mean? Certain age should be screened Biopsy PET scan Bone scan Ultrasound CT causes cancer- doc told me that Mining adds risk Eastern KY highest rate of lung cancer Make screening standard Cough blood to be screened No screening- up to the Lord when time is up Should be for young folks "Cancer" scary word	<i>"You mean you could be symptom free and still have cancer?"</i> <i>"Because you have a chance on knowing whether you have something or you don't have something in your body. That you can fight it."</i>
Willing to have LDCT <u>after</u> education session?	Yes-several of all groups Doctors are out for money / Cost issues Go to doc to get it/Why wouldn't doctor order it?	<i>"But the insurance companies oughta be a little bit, ya know, helping pay for them. You shouldn't have to pay out so much."</i>
"Based on what you know right now, what are your thoughts about people having a CT scan to screen for lung cancer?"	Two in one group (Lord will decide) One in another group "will think about it" Need to cough blood to have it? Coals miners and smokers should be tested	<i>"No. I don't want any. I don't wanna know, I just wanna go. When the Lord wants me, I just wanna go."</i> <i>"I'm a pastor at church. I'd just as soon not know it and go ahead and live my life at a normal pace... till the good Lord tells me it's time to go, that's it."</i>
II. CPM Domain Guiding Questions		
Domain/ Framing Question	Utterances in order of highest frequency	Example quotation
Message content	Early detection has a better outcome Do good once you have it	<i>"Well I just think that you have a screening and you did have</i>

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	Church		
	Media 50/50 trustworthy		
	Many do not have computers		
Message communication channels	Doctor offices and exam rooms- place flyers/ information	Radio Community meetings	<i>"I go call my doctor, make an appointment and I go talk to her."</i>
<i>"What channels or ways are best to get the message or advertise it?"</i>	Medical provider: at annual exam	Billboard Employers/Businesses Health Department	<i>"There's a lot on the internet now you can look it up and it tells you a lot."</i>
	Internet (Google, Bing)	Mobile unit Talk shows	<i>"But there's some that don't have access to computer."</i>
	Store flyer (Walmart, Food City, Lowes)	Library Word of mouth Cancer Society	<i>"You see something over and over and over and maybe you'll get to thinking about it."</i>
	Commercials/TV Mayo clinic.com	To high schools; get them young	
	WebMD	Advertisement	
	Direct mail	No computer	
	Newspaper advertisement; insert story	Facebook	