**INTRODUCTION**

Kentucky leads the nation in lung cancer incidence and mortality, while stigma surrounding the disease is equally prevalent. Unfortunately, our most rural communities in Kentucky experience cancer death and diagnosis at a greater proportion than their urban counterparts. Until recently, there has not been an evidence-based approach to secondary prevention of lung cancer.

Since 2013, the United States Preventive Task Force Services (USPTF) recommends screening eligible patients for lung cancer through low-dose computed tomography (LDCT).

As we know from currently recommended cancer screenings, early diagnosis improves prognosis and delays mortality due to a cancer diagnosis. Meta-analyses have shown that screening for lung cancer with low-dose CT can result in an increase in the detection of lung cancer at an earlier stage leading to higher treatment success and survival rates. With this in mind, it is imperative to connect and navigate eligible, high-risk patients to LDCT screenings to check for lung cancer. Local screening rates are unknown; however, Kentucky is part of a larger Southern region with only 1.7% screening among eligible patients.

**OBJECTIVES**

- Illustrate the lung cancer landscape of Eastern Kentucky and prioritize specific communities based on lung cancer incidence and mortality
- Identify gaps in the literature surrounding county-level screening rates and potential barriers to obtaining a lung cancer screening (LCS)
- Propose methods in which to assess patients lung cancer screening status, LCS eligibility, knowledge, attitudes, and behaviors surrounding lung cancer, in addition to deterministic and fatalistic beliefs.
- Propose primary care clinics as an ideal setting in which to screen patients for lung cancer and identify potential barriers.

**METHODS**

The results of our literature review revealed high levels of fatalism and determinism within Appalachian Communities. Evaluating the knowledge, attitudes, and beliefs of this patient cohort will reveal potential barriers that exist to obtaining LDCT to screen for lung cancer. We compare hypothesized results to national HINTS data to illuminate the possibility of similarities and variances between national and community level data.

<table>
<thead>
<tr>
<th>Question Asked</th>
<th>National HINTS Respondents</th>
<th>Appalachian Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Everything causes cancer</td>
<td>69.3%</td>
<td>or equal</td>
</tr>
<tr>
<td>There’s not much one can do to lower their chances of developing cancer</td>
<td>29.6%</td>
<td>or equal</td>
</tr>
<tr>
<td>Perceive that there are too many different recommendations about preventing cancer</td>
<td>72.1%</td>
<td>or equal</td>
</tr>
<tr>
<td>Talked with health care provider about LDCT in past year</td>
<td>10%</td>
<td></td>
</tr>
</tbody>
</table>

**HYPOTHESES RESULTS AND DISCUSSION**

The hypothesis results of our study based on surrounding literature, these informed guesses must not take the place of obtaining primary data from community members. This proposal is a framework from which we hope future researchers work. It is the first step to creating targeted and tailored interventions that benefit the Eastern Kentucky communities most at risk of losing loved ones due to a late diagnosis of lung cancer.

**CONCLUSION**

Lung cancer remains the leading cause of cancer-related mortality in the United States, affecting Eastern Kentucky communities at a disproportionate rate. Effective lung cancer screening utilizing LDCT has the capacity to prevent over 12,000 premature lung cancer deaths annually; though, it has been heavily underutilized in high-risk areas such as Eastern Kentucky.

- We have identified the need for county-level screening data which is not currently available at this time.
- We find it equally important to identify barriers that patients face to completing lung cancer screenings. These barriers may vary greatly and must be assessed on an individual level.
- We have proposed the administration of a paper-based survey study within local primary care clinics to assess the knowledge, attitudes, beliefs, and behaviors surrounding lung cancer and screening.
- Primary care providers are vital in managing patient’s preventive care and are the key to making referrals leading to life-saving screenings such as mammography, colonoscopies, and LDCT to check for lung cancer.

This proposal lays the groundwork for future research and is our study team’s vision that the work be carried out within the most high-risk communities in Kentucky. While we have hypothesized results of our study based on surrounding literature, these informed guesses must not take the place of obtaining primary data from community members. This proposal is a framework from which we hope future researchers work. It is the first step to creating targeted and tailored interventions that benefit the Eastern Kentucky communities most at risk of losing loved ones due to a late diagnosis of lung cancer.

**CITATIONS**