Data- and Context-Driven Approaches to Community Outreach for Colorectal Cancer Screening

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## Colorectal Cancer in Kentucky

### Age-adjusted cancer incidence rates, 2010-2014.

<table>
<thead>
<tr>
<th>Population</th>
<th>All Cancers</th>
<th>Lung</th>
<th>Colorectal</th>
<th>Cervical</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S.</td>
<td>452.1</td>
<td>61.2</td>
<td>39.8</td>
<td>7.5</td>
</tr>
<tr>
<td>Kentucky</td>
<td>521.1</td>
<td>95.3</td>
<td>50.0</td>
<td>8.7</td>
</tr>
<tr>
<td><strong>Appalachian Kentucky</strong></td>
<td><strong>538.5</strong>*</td>
<td><strong>108.9</strong>*</td>
<td><strong>55.1</strong>*</td>
<td><strong>10.2</strong>*</td>
</tr>
</tbody>
</table>

Source: National Program of Cancer Registries (NPCR) and Kentucky Cancer Registry, per 100,000 population.

* = p < 0.01 Appalachian vs. non-Appalachian Kentucky.

### Age-adjusted cancer mortality rates, 2010-2014.

<table>
<thead>
<tr>
<th>Population</th>
<th>All Cancers</th>
<th>Lung</th>
<th>Colorectal</th>
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</tr>
</thead>
<tbody>
<tr>
<td>U.S.</td>
<td>166.1</td>
<td>44.7</td>
<td>14.8</td>
<td>2.3</td>
</tr>
<tr>
<td>Kentucky</td>
<td>201.5</td>
<td>69.6</td>
<td>17.2</td>
<td>2.8</td>
</tr>
<tr>
<td><strong>Appalachian Kentucky</strong></td>
<td><strong>226.1</strong>*</td>
<td><strong>82.4</strong>*</td>
<td><strong>20.2</strong>*</td>
<td><strong>3.3</strong>*</td>
</tr>
</tbody>
</table>

Sources: NPCR and SEER*Stat, per 100,000 population.

* = p < 0.05 Appalachian vs. non-Appalachian Kentucky.
Socioeconomic Disparities in Kentucky

Appalachian County Economic Level 2016-2017

- Distressed (84)
- At-Risk (114)
- Transitional (210)
- Competitive (10)
- Attainment (2)
Contextual Approaches to Increase CRC Screening

- Center of Excellence in Rural Health, Hazard, KY
- MCC Affiliate Network
- MCC Research Network
- District Cancer Councils
- Primary Care Practices
- Health Departments
- Churches

Kentucky Cancer Consortium
A partnership for life.

Targeted Colon Cancer Outreach Program
Kentucky Cancer Program District Cancer Councils
Though CRC incidence rates in Kentucky had been on the rise, post-interventions, the rate has fallen by 24%, and the mortality rate has decreased 30%.
Provider Education to Increase CRC Screening in Appalachian KY

- Partnership with *three Area Health Education Centers (AHEC)*
- Focus on *primary care practices*
- Delayed intervention study design
  - Baseline chart reviews
  - Practice randomization
  - *Academic detailing intervention* (vs. control)
  - Six and 18-month chart reviews

Dignan: R01 CA113932; *Prev Med*, 2014
Faith Moves Mountains: A CBPR Appalachian Wellness & Cancer Prevention Program

- **70 faith-based institutions** in rural southeastern KY
- Administer, evaluate, and disseminate a tailored wellness and cancer prevention program
  - Smoking cessation, energy balance, [CRC] cancer screening
  - *Faith-placed recruitment*
  - Cancer screening education delivered by *lay health advisors*
  - Staggered intervention design
  - RE-AIM evaluation

- Replicable model for other rural communities across the U.S.

Schoenberg: R24 MD002757
Promoting CRC Screening in Rural Emergency Departments (ED)

- An ED provides services to many rural residents who may not have a primary care provider.

- Pilot test a culturally tailored intervention using brief motivational interviewing by lay health advisors to promote CRC screenings in an ED serving rural Appalachian KY.
  - Builds off two prior projects: Faith Moves Mountains and Promoting Mammography among African American Women Visiting ED.

- Evaluate the feasibility of the intervention and assess the effects on perceived barriers to CRC screening and future cancer screening.

Hatcher: R21 CA177359
Short *health communication video starring local residents and healthcare providers* to promote CRC screening + community outreach

- **Community distribution and return of FIT kits**
  - Receive results
    - Positive $\rightarrow$ Navigation to colonoscopy; follow-up
    - Negative $\rightarrow$ RCT enrollment
    - Participants are randomized to receive a *social media and personal messaging intervention* + standard of care vs. standard of care alone
  - **Cues to action and motivational information**

- **GOAL:** *Annual FIT repeat*
MCC Community Outreach Office staff have provided almost 3,000 FIT kits to community partners across central and eastern Kentucky, including MCC Network sites and a patient navigation organization.

Over 1,700 kits have been distributed to patients, of which 1,000 have been returned:
- 18% testing positive (180)
- Over 100 individuals have received colonoscopies, and
- One individual was diagnosed with CRC

NCI-supported National Outreach Network (NON) Community Health Educator (CHE):
- 100+ individuals in Appalachian KY reached with CRC education
- Coupled with pop health assessment data collection

Vanderpool: 3P30CA177558-03S2
Cancer Prevention and Control Research Network

- **FQHC Workgroup [national]**
  - Conduct surveys with FQHC staff on *current practices and readiness to implement and evaluate multi-level* CRC screening interventions
  - Conduct qualitative interviews to inquire about FQHC staff’s *decision-making process* around interventions to increase CRC screening

- **Appalachian Center for Cancer Education, Screening, and Support (ACCESS) [local]**
  - *Proactive Office Encounter (POE)* with Appalachian KY FQHC
    - 2014 = 39%
    - 2015 = 53%
    - 2016 = 57%
State Policy Changes

KCC and KCP were also instrumental in legislative successes, including passage of:

- **KRS 304.17A-257**, which mandated coverage of CRC screening as a health insurance benefit;

- **KRS 214.540-544**, which helped establish the Kentucky Colorectal Cancer Screening Project to provide free CRC screening tests to qualifying individuals via 14 health departments across the state; and

- **KRS 304.17A-257**, which ensured coverage of "complete colon cancer screening" based on ACS guidelines without a co-pay or deductible [also closed coding loophole: screening/diagnostic]
Additional Thoughts

- Rural focused dissemination and implementation science
  - Extensive formative research, training, resources, funding, technical assistance

- Sustainability

- Coordination of activities and players / silos of funding and initiatives within CRC
  - Benefit of KCC to *bring together and lead* all of these partners

- Innovative use of “other settings”, community-based networks and staff, and health communication *in combination* with personal-touch

- Capitalize on community-clinical linkages

- Patient-centered communication / patient navigation