Promoting Colorectal Cancer Screening in Rural Emergency Departments

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Why the Emergency Department?

- 100 million ED visits per year in the U.S.
- 1 in 5 Americans visit at least once a year (20%)
  - African Americans and other minorities more likely to visit
  - As income decreases likelihood of one or more visits increases
- Wait times for non urgent care are often more than 3 hours
- Teachable moment (heightened attention to health care enhancing receptivity to medical recommendations)
Why a Rural Emergency Department?

❖ Residents of rural Appalachia have a higher incidence and mortality rate from CRC than residents of other regions of the country
❖ A primary barrier to screening is limited access to the health care system resulting in infrequent recommendations for screening and inadequate screening education
❖ More than half of all rural ED visits are low severity cases
❖ More than half of all rural ED low severity cases occur during business hours
Establishing Feasibility

- Pilot survey of interest at Academic Medical Center Emergency Department
  - 197 women convenience sample of women seated in the ED
    - 15% had never had a mammogram
    - >50% out of compliance with current guidelines
    - ¾ were somewhat to very interested in receiving information while they waited

- SEEDS (Sisters Educated in Emergency Departments)

Specific Aims

❖ Adapt and pilot a tailored intervention to promote CRC screening in a rural Appalachian Kentucky ED in order to
  ❖ A) evaluate feasibility of providing a cancer screening promotion intervention in an ED that serves a rural community
  ❖ B) assess the effects of the intervention on barriers to CRC screening, stage of readiness to screen and CRC engagement.

❖ Long term goal of the project is to eliminate the inequitable burden of CRC experienced by rural Appalachian residents by increasing screening
Setting

• Rural Appalachian KY Emergency Department
  • St. Clair Hospital Morehead KY
    • Largest rural hospital in Northeastern Kentucky
    • Serves 11 rural counties and 160,000 persons
    • 23 bed ED (serving more than 30K per year)

• Hazard Appalachian Regional Hospital
  • Largest provider of care in Southeastern Kentucky
  • 24 Bed ED (25-35K patients per year)
Intervention protocol

- Establish eligibility
- Randomize to control or intervention
- Control: Brochure on CRC
- Intervention: Motivational Interview (MI) with resource assistance
- One week follow up: MI reinforcement and resource assistance
- Three month follow-up call
- Six month follow-up call
Protocol

- Establish eligibility
  - 50+ years old
  - No history of CRC
  - No cognitive impairment
  - English speaking
  - Has not had CRC screening according to guidelines

- Baseline interview

- Randomization

- Intervention

- One week telephone follow up MI
## Demographics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Treatment Mean (±SD) or N (%)</th>
<th>Control Mean (±SD) or N (%)</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td>57.25 (±8.40); range 50-84</td>
<td>58.44 (±9.17); range 50-84</td>
<td>.60</td>
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<tr>
<td><strong>Race/ethnicity</strong></td>
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<tr>
<td>White or Caucasian</td>
<td>93 (96.9)</td>
<td>94 (98.9)</td>
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<tr>
<td>Hispanic</td>
<td>2 (2.1)</td>
<td>1 (1.1)</td>
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</tr>
<tr>
<td>African American</td>
<td>1 (1.0)</td>
<td></td>
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</tr>
<tr>
<td><strong>Gender</strong></td>
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<td></td>
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</tr>
<tr>
<td>Female</td>
<td>62 (64.6)</td>
<td>50 (52.6)</td>
<td>.08</td>
</tr>
<tr>
<td>Male</td>
<td>34 (35.4)</td>
<td>45 (47.4)</td>
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</tr>
<tr>
<td><strong>Relationship Status</strong></td>
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<td></td>
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</tr>
<tr>
<td>Single, never married</td>
<td>11 (11.5)</td>
<td>7 (7.4)</td>
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<tr>
<td>Married/living with significant other</td>
<td>45 (46.9)</td>
<td>52 (54.7)</td>
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<tr>
<td>Divorced/Separated/Widowed</td>
<td>36 (37.5)</td>
<td>35 (36.8)</td>
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<tr>
<td>Other</td>
<td>4 (4.16)</td>
<td>1 (1.1)</td>
<td>.66</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Less than high school</td>
<td>27 (28.1)</td>
<td>28 (29.5)</td>
<td>.66</td>
</tr>
<tr>
<td>Completed high school or GED</td>
<td>42 (43.8)</td>
<td>41 (43.2)</td>
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<tr>
<td>Some College</td>
<td>21 (21.9)</td>
<td>18 (18.9)</td>
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<tr>
<td>Completed College Degree or Post Graduate</td>
<td>4 (4.2)</td>
<td>8 (8.4)</td>
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</tr>
<tr>
<td>Other</td>
<td>2 (2.1)</td>
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<td>.46</td>
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<tr>
<td><strong>Income</strong></td>
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<tr>
<td>≤ $19,999</td>
<td>28 (29.1)</td>
<td>35 (36.8)</td>
<td>.46</td>
</tr>
<tr>
<td>$20,000 - $39,999</td>
<td>18 (18.8)</td>
<td>16 (16.8)</td>
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<tr>
<td>≥ $40,000</td>
<td>9 (9.4)</td>
<td>7 (7.4)</td>
<td>.87</td>
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<tr>
<td>Other</td>
<td>41 (42.7)</td>
<td>37 (38.9)</td>
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<tr>
<td><strong>Health Insurance</strong></td>
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<td>.73</td>
</tr>
<tr>
<td>No Insurance</td>
<td>24 (25.0)</td>
<td>21 (22.1)</td>
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</tr>
<tr>
<td>Government Insurance</td>
<td>72 (75.0)</td>
<td>74 (77.9)</td>
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Baseline results

Barriers to Screening

- Fear (50.8%) of the test result & fear of pain (50.3%)
- Cost (48.7%) regardless of insurance status

<table>
<thead>
<tr>
<th>Ever screened</th>
<th>Treatment</th>
<th>Control</th>
</tr>
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<tbody>
<tr>
<td>Yes</td>
<td>4 (4.2%)</td>
<td>6 (6.3%)</td>
</tr>
<tr>
<td>No</td>
<td>92 (95.8%)</td>
<td>88 (92.6%)</td>
</tr>
</tbody>
</table>
Conclusions

• Non-urgent ED users are not being screened regularly
• Using ED to conduct this intervention is feasible
• LHWs are effective in this setting
• There are both benefits and challenges to CRC screening promotion in the ED
Challenges

- Transient population
- Fidelity to the protocol
- Contamination
- Privacy
Benefits

- Reaching hardest to reach
- Emergency Department Staff
- Community Health Workers
Discussion & Questions