ENHANCING PREVENTION PATHWAYS TOWARDS TRIBAL COLORECTAL HEALTH

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NIH/NCI: 1R01CA192967
Goal: Promote health equity and reduce CRC disparities in morbidity, mortality, stage-at-diagnosis, and survival among Native Americans

Objective: To test the efficacy of serially implemented graded intensity interventions to enhance CRC screening with FIT in tribal communities

SERIAL IMPLEMENTATION: offering routine FIT screening annually, irrespective of response to an earlier invitation, in concordance with guidelines (from ages 50-75)
COLORECTAL CANCER AMONG AMERICAN INDIANS IN NEW MEXICO
HEALTH DISPARITY

- Colorectal cancer incidence and mortality rates have declined substantially over time, especially among Non-Hispanic Whites and Hispanics.

- Native Americans . . .
  - Either no or slight change in colorectal cancer morbidity and mortality rates.
  - Less screening.
  - More advanced disease and lower survival rates.
# Colorectal Cancer in New Mexico – Incidence

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Rate</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Indian/Alaska Native</td>
<td>39.4</td>
<td>52.0</td>
<td>30.1</td>
</tr>
<tr>
<td>Non-Hispanic White</td>
<td>31.8</td>
<td>35.5</td>
<td>28.5</td>
</tr>
<tr>
<td>All Races Combined</td>
<td>32.5</td>
<td>37.0</td>
<td>28.6</td>
</tr>
</tbody>
</table>

- Rate per 100,000 persons 2012-2014
- **Source = NM Tumor Registry, NM IBIS**
# Colorectal Cancer in New Mexico – Mortality

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Rate</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Indian/Alaska Native</td>
<td>16.9</td>
<td>22.3</td>
<td>12.9</td>
</tr>
<tr>
<td>Non-Hispanic White</td>
<td>12.5</td>
<td>14.8</td>
<td>10.6</td>
</tr>
<tr>
<td>All Races Combined</td>
<td>13.8</td>
<td>16.6</td>
<td>11.4</td>
</tr>
</tbody>
</table>

- Rate per 100,000 persons 2012-2014
- Source = NM Tumor Registry, NM IBIS
## Colorectal Cancer in New Mexico – Screening

<table>
<thead>
<tr>
<th>RACE/ ETHNICITY</th>
<th>ALL</th>
<th>MALE</th>
<th>FEMALE</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Indian/ Alaska Native</td>
<td>45.3%</td>
<td>38.1%</td>
<td>49.9%</td>
</tr>
<tr>
<td>Non-Hispanic White</td>
<td>65.1%</td>
<td>66.7%</td>
<td>63.7%</td>
</tr>
<tr>
<td>All Races Combined</td>
<td>61.1%</td>
<td>60.0%</td>
<td>62.0%</td>
</tr>
</tbody>
</table>

- % up-to-date with CRC screening
- Source = NM BRFSS 2012-2014
COLORECTAL CANCER IS PREVENTABLE, BUT . . .

62% of Native Americans in New Mexico are diagnosed at regional or distant stages of colorectal cancer.

ONLY 3 IN 10
American Indian men and women in the Indian Health Service Albuquerque Area are up-to-date with colorectal cancer screening.

Source: Indian Health Service GPRA Area Summary Report 2019
SPECIFIC AIM #1

**Aim:** Finalize and evaluate (using a three-arm randomized controlled trial design and mixed methods) the efficacy of serially implemented interventions of graded intensity for increasing annual CRC screening uptake

**Primary Hypothesis:**
- Participants receiving the high intensity intervention will have a 20 percentage point increase in screening uptake than those receiving usual care
- Participants receiving the medium intensity intervention will have a 10 percentage point increase in screening uptake than those receiving usual care
SPECIFIC AIM #2

**Aim:** Determine (using qualitative methods) promoters and barriers to enhancing annual CRC screening practices from the perspective of:

- Participants who were “largely adherent” (completed FIT 2 or 3 of 3 times) and those who were “not adherent” (never completed or completed FIT only 1 of 3 times)
- Navigators
- Health care providers and medical directors at IHS health facilities
SPECIFIC AIM #3

Aim: Conduct process evaluation (using mixed-methods) to:
- Determine the costs of completing CRC screening
- Determine fidelity of study implementation
- Develop program sustainability and scalability plans

Primary Hypothesis:
Cost analysis will indicate that the high followed by the medium intensity interventions are more cost-effective strategies to enhance CRC screening uptake than usual care.
Group 1  
Usual Care

two communities

Group 2  
Mail Only

two communities

Group 3  
Mail + CHW

two communities

+ 

two communities
OUTCOME MEASURES

**PRIMARY:** Annual completion of FIT

**SECONDARY:** Changes in participant CRC-related 
- Knowledge
- Attitudes
- Perceived Control
- Perceived Susceptibility
- Perceived Severity
- Self-Efficacy
THEORETICAL FRAMEWORK

Figure 1: Health Behavior Framework

- Health Policy Environment
- Built Environment
- Community Capacity
- Social Norms & Advocacy
- Health Care System
- Economic Environment
- & Engagement

Individual Variables
- Knowledge
- Communication with provider
- Health beliefs
- Social norms and support
- Past health behaviors
- Barriers and supports
- Cultural factors and beliefs

Provider & Health Care System Factors
- Provider characteristics
- Health care setting
- Practice patterns
- Structural factors

Barriers & Supports: Individual, System, Societal

Intentions: To obtain CRC screening

Behavior: CRC Screening Uptake
- Demographic factors
- Medical history
- Health care coverage & benefits

Long-Term Behavior:
- Adherence to recommended screening guidelines
- Polyp surveillance
- Reduction in risk behaviors
PROGRESS TO DATE

• Hired Project Coordinators:
  — Matthew Frank at AASTEC
  — Dolores Guest at UNM

• Protocol approved by Southwest Tribal IRB and UNM Human Research Review Board.

• Applied for and received a Certificate of Confidentiality

• Protocol on ClinicalTrials.gov

• Established Community Advisory Council
PROGRESS TO DATE

INTERVENTION FINALIZATION

- Completed focus groups
- Revised educational materials accordingly
- SAM-CAM (Suitability Assessment of Materials and Comprehensibility of Materials)
  - Score = 90.3 (Superior)
- Developed, pilot tested, and finalized pre-post survey instrument
CONTACTS

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Colorectal Health
Protect Yourself, Your Family, and Our Community