Reducing Patient Barriers to Colorectal Cancer Screening via At-home Provision of Multitarget Stool DNA Testing Kits

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BACKGROUND
- Colorectal Cancer (CRC) is the third-leading cause of cancer-related mortality in the United States for both men and women.1
- CRC screening strategies include colonoscopy, sigmoidoscopy, and stool tests.2
- Stool-based screening is noninvasive and can be done at home.3
- Colougrid offers a convenient, at-home, stool collection and preservation method combined with prepared UPS pickup label.4

MEASURE
- Patients noncompliant for colorectal cancer screening.

AIM STATEMENT
We aimed to improve routine colorectal screening in Non-Compliant (NC) patients in Southeast Minnesota by 17 percent, from 13.561 NC to 11.256 NC by 02/21/2023.

BASELINE
- Colougrid Kits
- Kits Sent to Patients: 12,032
- Kita Returned: 1,278
- Goal: 17%
- Improved: 14.4%
- Kita Sent Out: 2,559
- Kita Returned: 1,278
- Improvement: 14.4%

CRC SCREENING RESULTS

<table>
<thead>
<tr>
<th>Location</th>
<th>Amount of Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>SEMN health systems</td>
<td>1,059</td>
</tr>
<tr>
<td>Participants</td>
<td>Non-compliant, moderate-risk, patients aged 45-75</td>
</tr>
<tr>
<td>Baseline Sample Size</td>
<td>12,032 patients</td>
</tr>
</tbody>
</table>

Figure 1: The outcome of the returned kits in shown. Both test results came back negative. 11.4% of the kits came back with a positive result. These patients were notified and were recommended to get a colonoscopy.

ANALYSIS
- Lack of Patient Education
- Inadequate Access and Support

PERCENT OF TOTAL CRC KIT RETURN

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Patients</th>
<th>Total %</th>
<th>% Screening completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian</td>
<td>13</td>
<td>91</td>
<td>14.2%</td>
</tr>
<tr>
<td>Black or African American</td>
<td>21</td>
<td>246</td>
<td>8.54%</td>
</tr>
<tr>
<td>Other or unknown</td>
<td>23</td>
<td>2,305</td>
<td>1.43%</td>
</tr>
<tr>
<td>White</td>
<td>1,671</td>
<td>9,389</td>
<td>17.7%</td>
</tr>
<tr>
<td>Total</td>
<td>1,738</td>
<td>12,032</td>
<td>14.4%</td>
</tr>
</tbody>
</table>

Figure 2: The preferred language of those who returned their kit is shown. The kits were only sent out in English. Of the 1,738 patients who completed kits, 1,696 were English speaking. Spanish speakers account for 25 returned kits.

PERCENT OF CRC KIT RETURN BY ETHNICITY

| Intervention selected & tested
| Colougrid kits were sent out to patients who were CRC non-compliant, Colougrid eligible, and between the ages of 45-75. A portal message was sent explaining the Colougrid process. Patients who did not receive the kits to their home address. Patients were responsible for stool sample collection to test for cancerous DNA and fecal occult blood.

Figure 3: 1,738 out of the 12,032 individuals who were due for a CRC screening sent back their Colougrid kits. Colougrid kits increased the CRC screening rate by 14.4% from baseline.

CONCLUSIONS
- of the returned kits had 198 positive, requiring further testing.
- Colorectal screening improved by 14.4% at our study’s conclusion and counting.

REFERENCES