Increasing Colorectal Cancer Screening Among American Indians Through Patient Navigation and Direct Mailing of Fecal Immunochemical Test Kits

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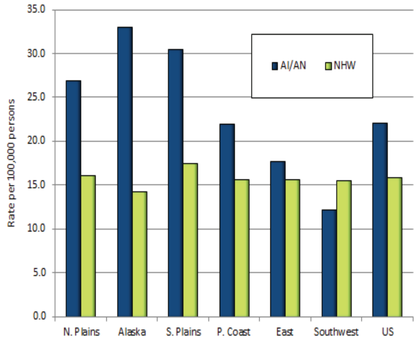
Background

- Colorectal cancer (CRC) is the second and third leading cause of cancer deaths for American Indian and Alaska Native (AI/AN) males and females, respectively.
- In 2014, only 37.5% of the Indian Health Service (IHS) service population was up to date with CRC screening, according to Government Performance and Results Act data.
- Limited screening likely contributes to the CRC disparities faced by AI/AN populations. This study examined the use of direct mailing of Fecal Immunochemical Test (FIT) to patients and outreach with reminder telephone calls and/or home visits by CHRs as strategies to increase CRC screening participation among rural AI/AN populations.

Colorectal cancer mortality rates, AI/AN and non-Hispanic White, both sexes, 2005-2009



Methods

- Setting: Three IHS and Tribal health facilities in New Mexico
- Participant eligibility:
  - Male or Female
  - Age 50-75
  - Not up-to-date with CRC screening
    - No FOBT/FIT in past year
    - No Flex Sig in past 5 years
    - No colonoscopy in past 10 years
  - No history of CRC or total colectomy
- Participants randomized to following groups:
  - Usual care – opportunistic approach to screening during clinic visit
  - Mailout of FIT kits
  - Mailout of FIT kits + Community Health Representative (CHR) Outreach
- CHR Intervention design:
  - Outreach 1: Phone calls (up to 5 attempts) 4 weeks after mailout
  - Outreach 2: Home visits (up to 3 attempts) 8 weeks after mailout
  - Outreach 3: Phone calls (up to 5 attempts) 12 weeks after mailout
- CHRs received training in CRC navigation from Tribal CRC Health project staff at the Albuquerque Area Indian Health Board

Acronyms

AI/AN = American Indian and Alaska Native
CHR = Community Health Representative
CRC = Colorectal Cancer
FIT = Fecal Immunochemical Test
FOBT = Fecal Occult Blood Test
IHS = Indian Health Service

Results

Study Participant Allocation, by IHS or Tribal Health Care Facilty

Group	Facility 1 n (row%)	Facility 2 n (row%)	Facility 3 n (row%)	Total n (column%)
Usual Care	257 (45.4%)	95 (16.8%)	214 (37.8%)	566 (43.9%)
Mail Only	133 (36.8%)	95 (26.3%)	133 (36.8%)	361 (28.0%)
Mail + CHR	133 (36.8%)	95 (26.3%)	133 (36.8%)	361 (28.0%)
Total	523 (40.6%)	285 (22.1%)	480 (37.3%)	1288 (100.0%)

Study Group, by whether FIT kit returned

	Yes	No
Usual Care	36 (6.4%)	530 (93.6%)
Mail Only*	61 (16.9%)	300 (83.1%)
Mail + CHR†	68 (18.8%)	293 (81.2%)
Total	165 (12.8%)	1123 (87.2%)

* Sig. difference compared to usual care (P < 0.01)
† Sig. difference compared to usual care (P < 0.01) but no sig. difference compared to Mail Only (P=0.44)

Age by whether FIT kit returned

	Yes	No
50-59 years	70 (10.8%)	578 (89.2%)
60-69 years	66 (13.6%)	418 (86.4%)
70 years +	29 (18.8%)	125 (81.2%)

Chi-Square Test: (P = 0.02)

Returned FIT Results

	n (%)
Positive	39 (23.6%)
Negative	123 (74.5%)
Invalid	1 (0.6%)
Missing	2 (1.2%)

Method FIT kit returned

	n (%)
Mailed	27 (16.4%)
CHR	1 (0.6%)
Hand delivered	137 (83.0%)

Positive FIT referred for Colonoscopy

	n (%)
Yes	13 (33.3%)
No	1 (2.6%)
Missing	25 (64.1%)

CHR Outreach for Returned FIT Kits (n=68)

Total outreach needed	n (%)
No Outreach	33 (48.5%)
1 Phone Call	16 (23.5%)
2 Phone Calls	4 (5.9%)
1 Home Visit	4 (5.9%)
2 Home Visits	2 (2.9%)
1 Phone Call + 1 Home Visit	7 (10.4%)
1 Phone Call + 2 Home Visits	2 (2.9%)

Total Phone Outreaches by CHR for Not Returned FIT Kits (n=293)

Phone attempts	n (%)
0	91 (31.1%)
1	92 (31.4%)
2	62 (21.2%)
3	44 (15.0%)
4	3 (1.0%)
5	1 (0.3%)

Total Home Visits by CHR for Not Returned FIT Kits (n=293)

Home visit attempts	n (%)
0	164 (56.0%)
1	75 (25.6%)
2	24 (8.2%)
3	23 (7.8%)
4	4 (1.4%)
5	2 (0.7%)
8	1 (0.3%)

Discussion

Limitations

- Due to a number of factors, such as staff turnover and conflicting job duties, CHRs were unable to carry out all outreach as designed for the study. We could not determine if significant differences in FIT kit return rates would have been detected had CHRs been able to perform the outreach intervention as designed.
- The study was carried out in three IHS or Tribal facilities, so results are not generalizable to all AI/AN populations.

Conclusions

- Mailout of FIT Kits to eligible community members may be a useful, population-based strategy to increase CRC screening among American Indians.

Next Steps

- CHR focus group or individual interviews will be conducted to elucidate the key barriers to conducting patient navigation and follow-up for colorectal cancer screening.
- Further follow-up will be conducted to determine whether participants who had positive FIT were referred for colonoscopy, and how many of those followed through with the procedure.

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