

# **A Randomized Controlled Trial of Patient Navigation to Promote Colorectal Cancer Screening in Community Health Centers**

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# Background-Patient Navigation

- Increases colorectal cancer (CRC) screening rates among underserved adults
- Patient navigators
  - from the community
  - guide patients through the health care system
  - advocacy and coordination
- Prior studies have not included Haitian Creole and Portuguese-speaking patients

# Objective

To conduct a six-month RCT of patient navigation versus usual care to promote CRC screening among six community health centers in greater Boston with substantial numbers of Haitian Creole and Portuguese-speaking patients.

## Study setting: Cambridge and Somerville, MA

- 6 community health centers
- Multi-cultural, low-income population
- Centers not part of MA Department of Health Patient Navigation Program
- Common EMR

# Inclusion and Exclusion Criteria

## Included patients

- Aged 50–74 overdue for CRC screening based on national guidelines
- Speaking English, Portuguese, Spanish and Haitian Creole

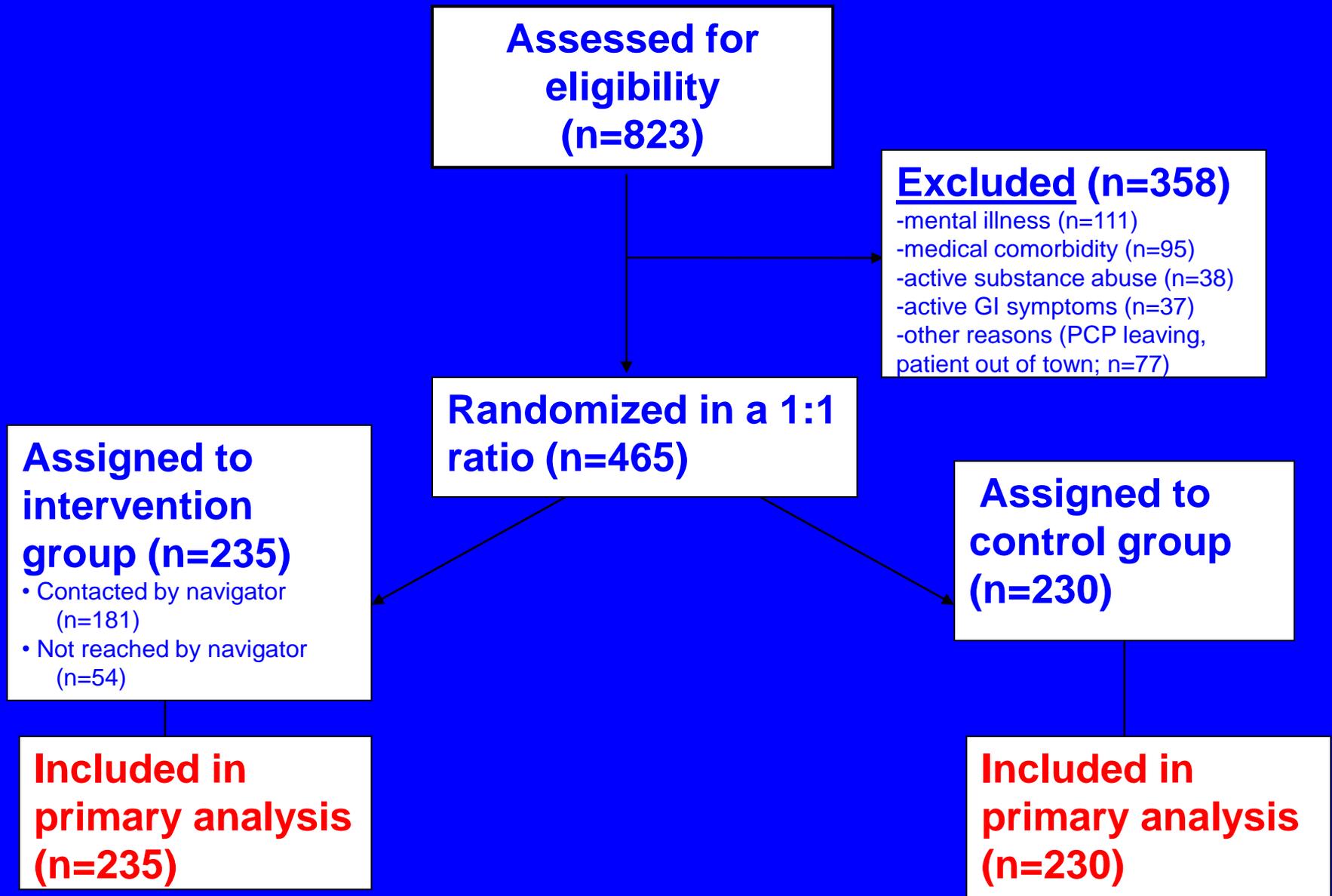
## Excluded patients with

- Significant comorbid medical disease (e.g. severe CAD, COPD, or CHF)
- Active substance use or severe mental illness on their problem list

# Enrollment

September 2008 to March 2009; one  
year follow-up

# CONSORT Flow diagram



# Intervention

- Letters, signed by PCP, notifying patients about patient navigator outreach
- CRC screening brochure at sixth-grade reading level in study languages
- Maximum of six hours of patient navigation over a six-month period or usual care
- 3 female navigators, based in Depts. of Medicine and Community Affairs
- Trained in CRC screening, motivational interviewing

# Intervention

- Intervention framed around a “stages of change” model
- Contacted the intervention patients using a staged roll-out procedure, by health center
- Lead navigator in close contact with scheduling RN in GI Center
- Evenings and weekends, flexibility
- Review prep instructions
- Meet patient in colonoscopy suite
- Help with insurance issues

# Randomization, Outcomes, & Analysis

- Randomized at the patient level, stratified by health center and by language
- Primary outcome: completion of CRC screening 12 months post-enrollment
- Chart reviews blinded to intervention assignments
- Intention-to-treat analysis; planned subgroup analysis based on language
- Chi-square and Fisher's exact tests to compare proportions between groups.

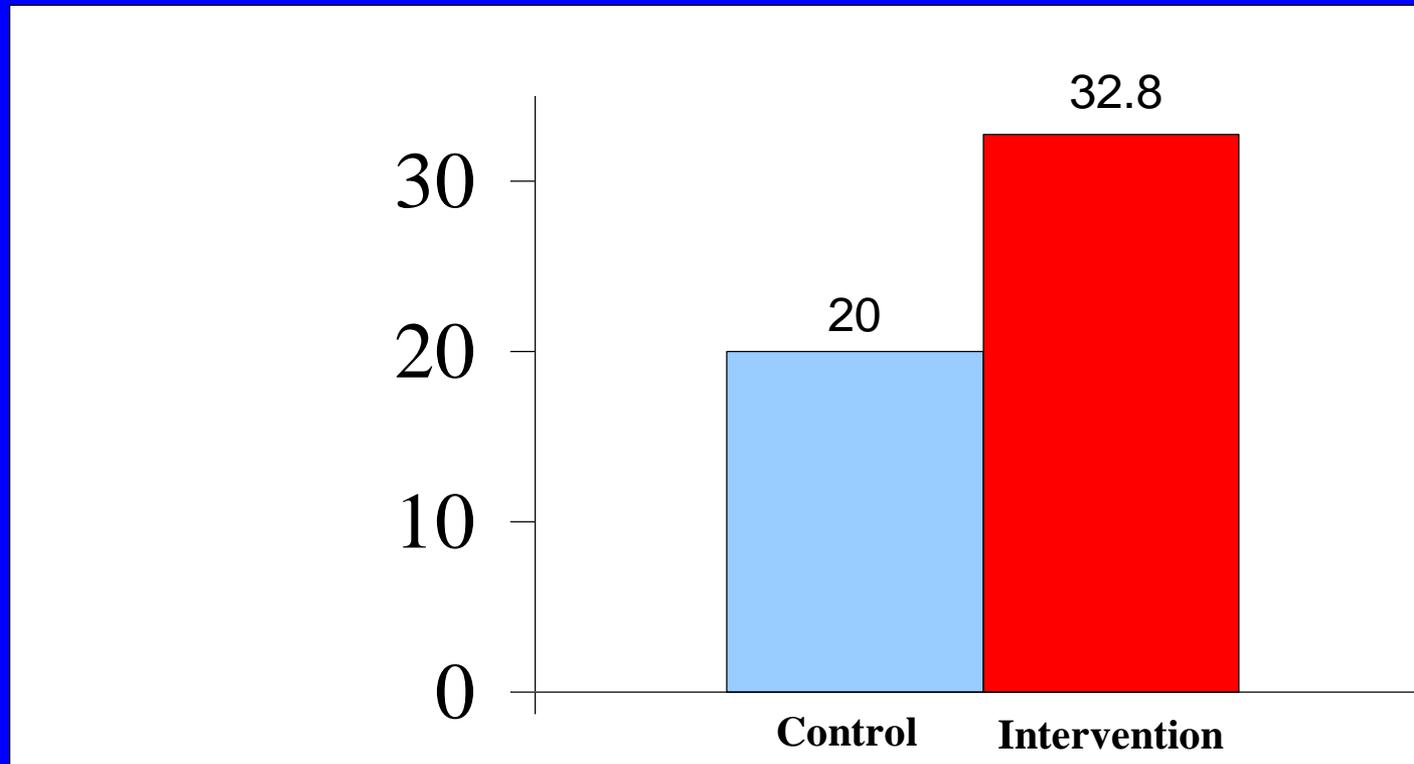
## Baseline Patient Characteristics

	Intervention n = 235	Control n = 230	P
Age, y	61.1	61.6	.35
Female, %	60.4	62.6	.63
White race, %	47.7	47.4	.44
Private insurance	32.3	33.5	.41

## Baseline Patient Characteristics

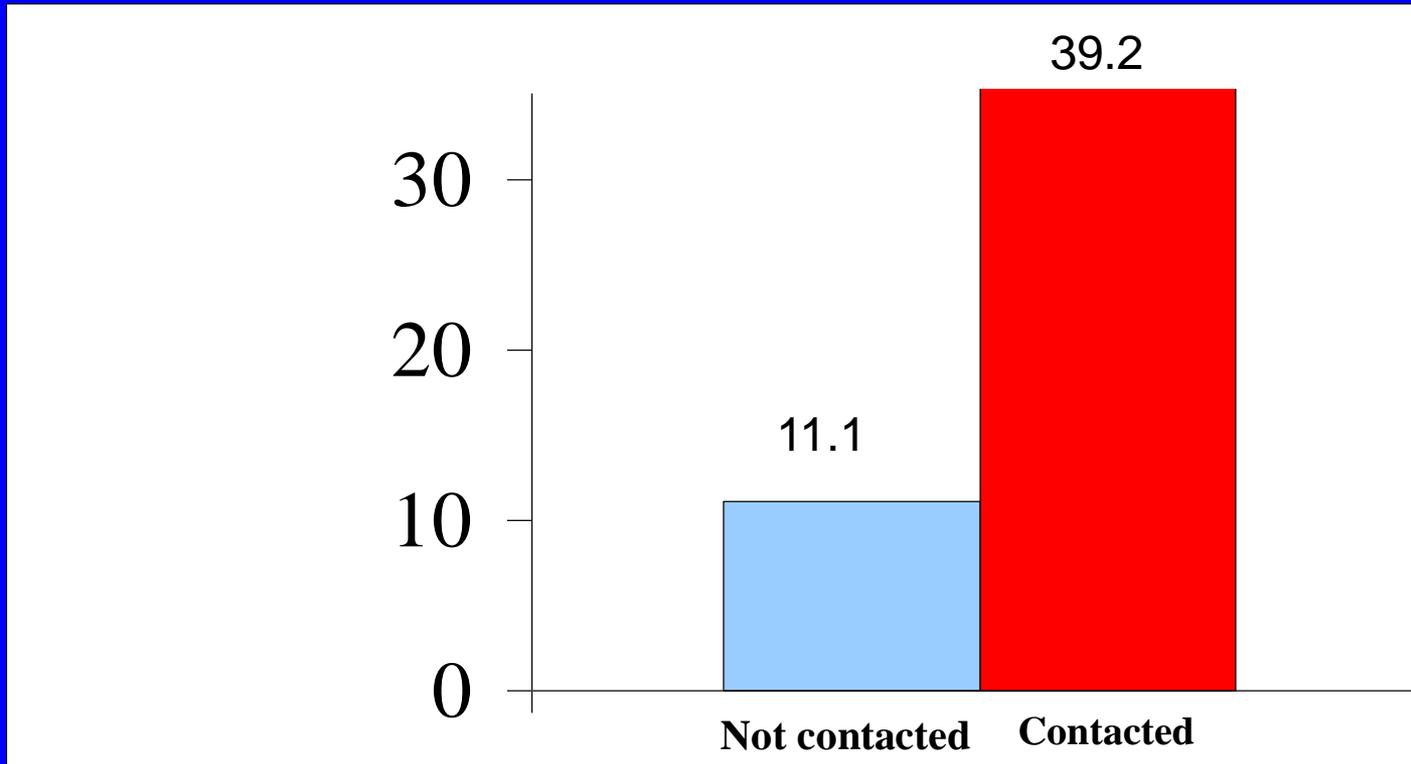
%	Intervention n = 235	Control n = 230	P
English	47.7	48.7	.99
Portuguese	20.4	19.6	
Haitian Creole	17.9	18.3	
Spanish	14.0	13.5	

# Main Results at 12 months: Screening completed (%)



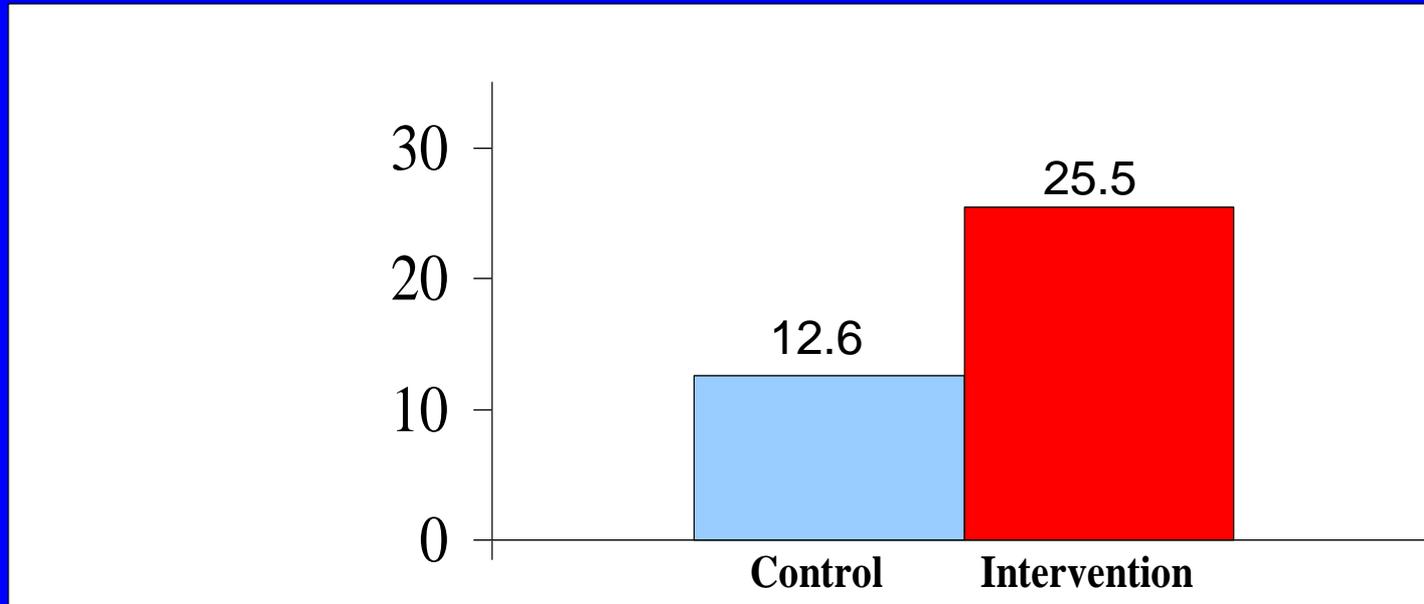
P=.002

# Intervention Patients: Screening completed (%)



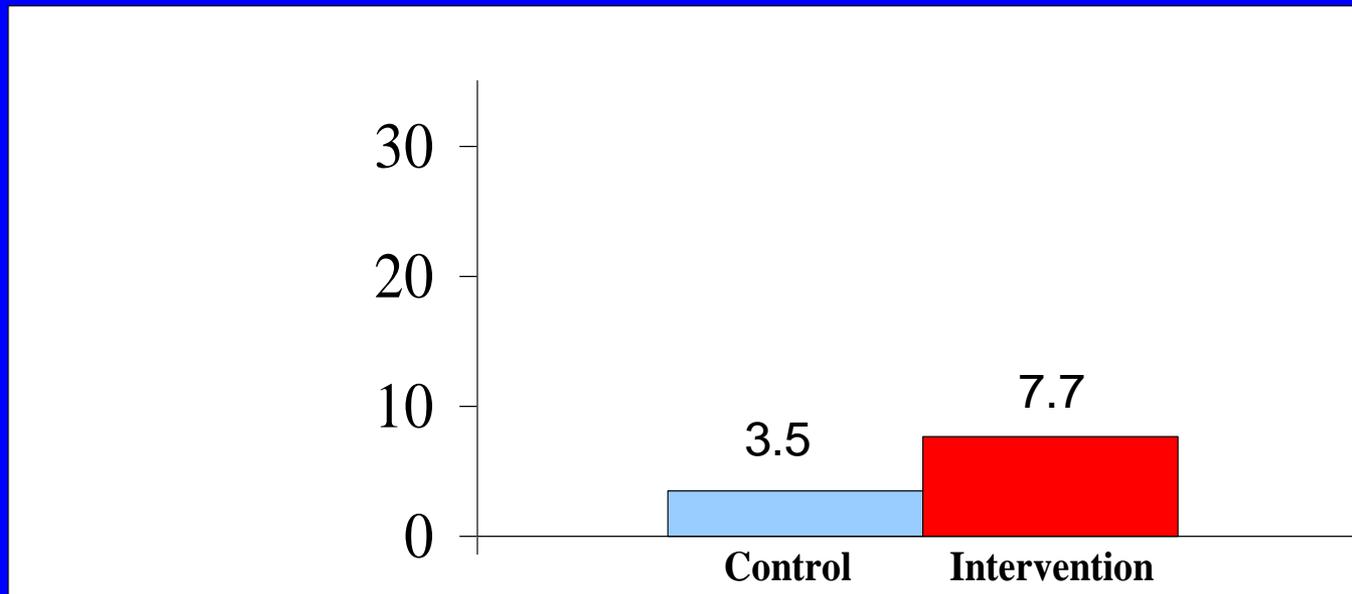
$P = .0002$

# Colonoscopy Screening Completed (%)



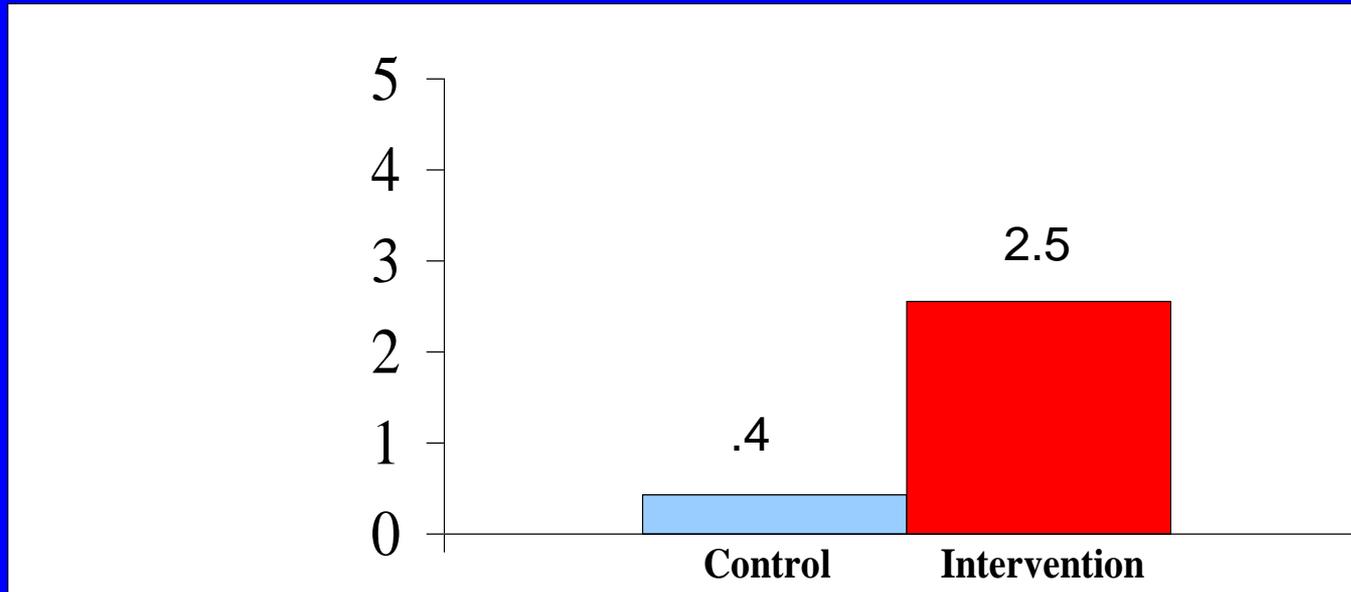
P=.0004

# Patients with adenomas or cancer (%)



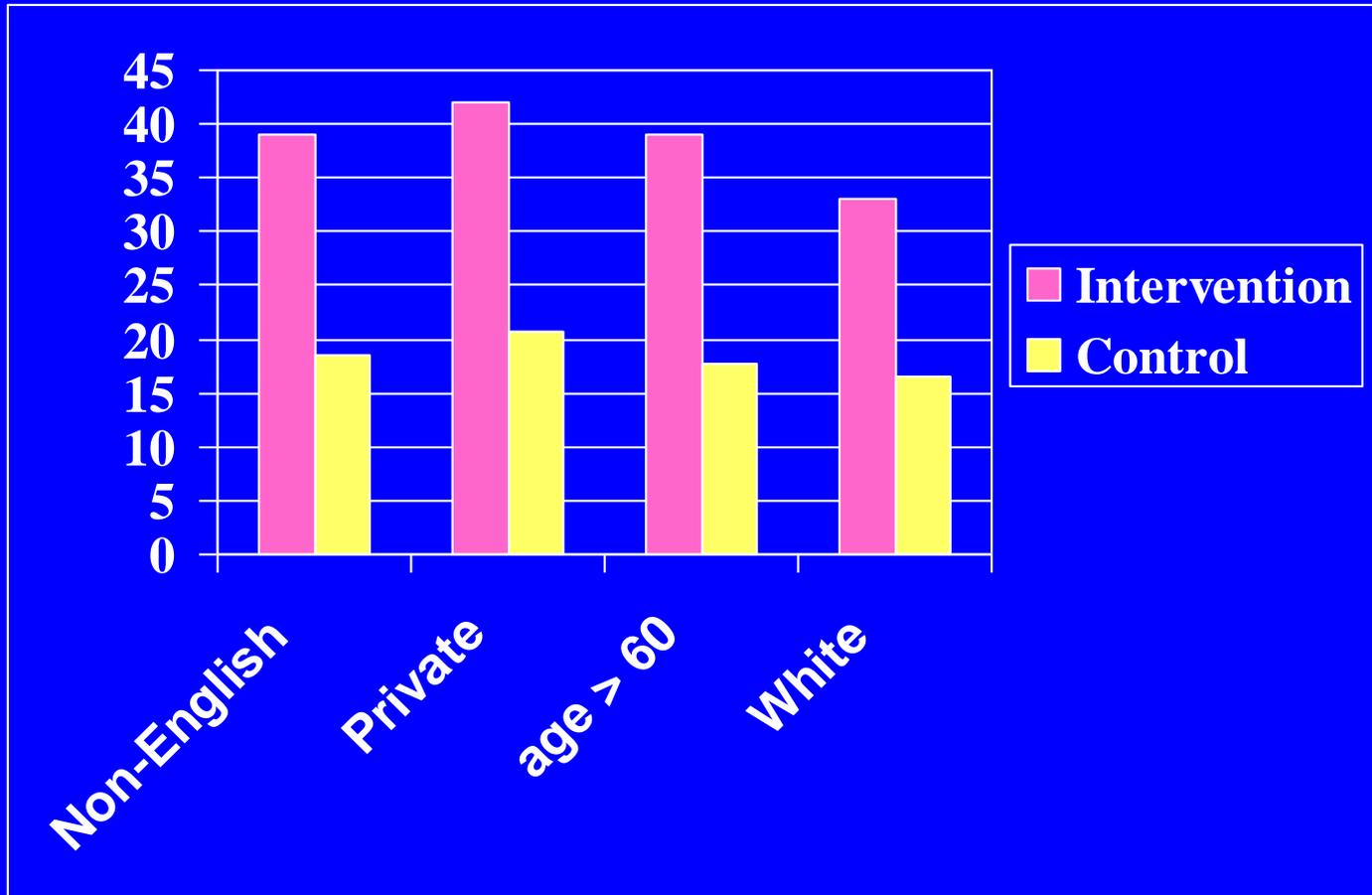
P=.05

# Patients with high-risk lesions (%)



P=.06

## Significant subgroup analyses: screening completed (%)



$p < .01$  for all comparisons

# Effective Components of Intervention

- Patient navigation support; 25% of screened intervention patients had navigator present at GI suite
- Reinforcement of message in letter, from PCP, and from navigator (43%)
- Insurance coverage was not a common barrier to screening

# Conclusions

- Patient navigators significantly improved CRC screening rates among ethnically and linguistically diverse patients served by community health centers.
- The intervention increased colonoscopy screening rates, and was particularly effective among non-English speaking patients

# Limitations

- Single geographic location
- Usual care group began to receive mailed outreach about CRC screening in early 2009
- Planned care outreach became community standard of care
- Health center closings and PCP turnover

# Implications

- Future research will need to address whether health systems can afford navigation to achieve this degree of benefit, outside of the RCT setting
- Targeting patient navigation to non-English speaking patients may be one approach to reducing cancer screening disparities

# Implications for the VA

- Differing demographics/patterns of disparities
- Concerns about overutilization of CRC screening at VA among patients with poor health/severe comorbidity
- Studies that include patients with substance use and mental illness (who have lower CRC screening rates at the VA) are warranted and could show benefit among VA patients

# Acknowledgement of support

Mentored Research Scholars  
Grant to Dr. Lasser from the  
American Cancer Society  
(MRS GT-05-007-01-CPPB)