Disparities in colorectal cancer screening by occupational characteristics

National Colorectal Cancer Roundtable Annual Meeting
December 7, 2017
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Disparities in cancer screening by occupational characteristics

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DOI: 10.1016/j.ypmed.2017.10.012
Disparities in Up-to-Date CRC Screening Prevalence, NHIS 2015

AI/AN= American Indian/Alaska Native
Up-to-Date= Colonoscopy in the Past 10 years, Sigmoidoscopy in the Past 5 yr plus Stool Test in the Past 3 yrs, or Stool Test in the Past Yr

Source: White et al. MMWR. 2017. PMID:28253225
Disparities by occupational characteristics

• Few previous studies examined employment characteristics or benefits in relation to screening utilization
• Workplace-based interventions
• Health systems processes
• Cancer control efforts
Study aim

• To examine cancer screening in relation to occupational characteristics using nationally-representative data
Data Source

• National Health Interview Survey
  • Nationally-representative
  • Self-reports
  • In-person interviews
  • Conducted annually, with cancer screening questions included every 2-3 years
    • 2010, 2013, 2015
Outcome & Study Population

• **Outcome**
  - Up-to-date CRC screening: FIT or FOBT in past year, sigmoidoscopy in the past 5 years, or colonoscopy in the past 10 years

• **Study Population**
  - Employed
  - Men and women age ≥50 years
    - 85% age 50-64 yrs
    - 75% non-Hispanic white
    - 72% privately insured, 9% uninsured
Employer Size, Employed Adults ≥50 yrs

- 1-24 employees, 43%
- 25-99 employees, 21%
- 100-499 employees, 19%
- 500+ employees, 18%
Unadjusted Prevalence of CRC Screening by Employer Size, Employed Adults ≥50 yrs

Combined: Colonoscopy in past 10 years, Stool Test in past year, Sigmoidoscopy in past 5 years.
Colonoscopy: in past 10 years
Stool-based: in past year
Adjusted Prevalence Ratios of CRC Screening by Employer Size

- Reference group: 500+ employees
- Sociodemographic & socioeconomic variables
  - Education
  - Poverty
  - Insurance
- Associations diminished to null
Proportion with Low Educational Attainment by Employer Size, Employed Adults ≥50 yrs

Low educational attainment: ≤high school diploma
Proportion Uninsured by Employer Size, Employed Adults ≥50 yrs
Occupation Type, Employed Adults ≥50 yrs

- Management/Business: 19%
- Office Support: 13%
- Construction: 12%
- Production/Transport: 12%
- Education: 7%
- Sales: 9%
- Scientist: 6%
- Healthcare Practitioners: 6%
- Healthcare/Personal Support: 5%
- Food Service: 3%
- Community/Social Services: 2%
- Arts/Design: 2%
- Other: 4%
- Healthcare Practitioners: 6%
- Food Service: 3%
- Community/Social Services: 2%
- Arts/Design: 2%
- Other: 4%
Prevalence of CRC Screening by Occupation Type, Employed Adults ≥50 yrs

- Construction, 44%
- Food Service, 45%
- Production/Transport, 48%
- Healthcare/Personal Support, 50%
- Sales, 55%
- Arts/Design, 59%
- Office Support, 60%
- Management/Business, 65%
- Community/Social Services, 65%
- Healthcare Practitioners, 65%
- Scientist, 66%
- Education, 66%

<50%

≥65%
Unadjusted Prevalence of CRC Screening by Occupation Type, Employed Adults ≥50 yrs

Combined: Colonoscopy in past 10 years, Stool Test in past year, Sigmoidoscopy in past 5 years.
Colonoscopy: in past 10 years
Stool-based: in past year
Adjusted Prevalence Ratios of CRC Screening by Occupation Type

- Reference group: healthcare practitioners
- Sociodemographic & socioeconomic variables
  - Education
  - Poverty
  - Insurance
- Associations diminished to null except for:
  - Construction
  - Production/ Transport
Proportion with Low Educational Attainment by Occupation Type, Employed Adults ≥50 yrs

Low educational attainment: ≤high school diploma
Proportion Uninsured by Occupation Type, Employed Adults ≥50 yrs

- Management/Business
- Office Support
- Construction
- Production/Transport
Limitations

• Employer size
• Stool-based tests
• Screening vs. diagnostic
Conclusions

• Lower CRC screening prevalence among workers employed at smaller organizations
  • Higher proportion of workers with low educational attainment
  • Higher proportion of uninsured workers

• Lower CRC screening prevalence among workers in common occupation types: construction and production
  • Higher proportion of workers with low educational attainment
  • Construction: higher proportion of uninsured workers

• Most of observed disparities by occupational characteristics attributable to socioeconomic status and insurance type
Thank you!

• Acknowledgments
  • Dr. Stacey Fedewa
  • Carol DeSantis
  • Rebecca Siegel
  • Dr. Ahmedin Jemal
  • Surveillance & Health Services Research Program, Intramural Cancer Research Dept