Social Risk Factors and Receipt of Cancer Prevention Care in Community Health Center Patients

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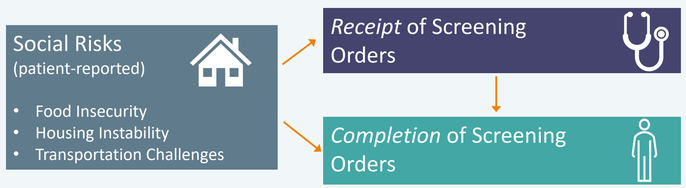
Research Objective

To assess associations between social risks and guideline-concordant colorectal (CRC), breast (BC), and cervical (CVC) cancer screening *orders* and *rates of completion.*



Background

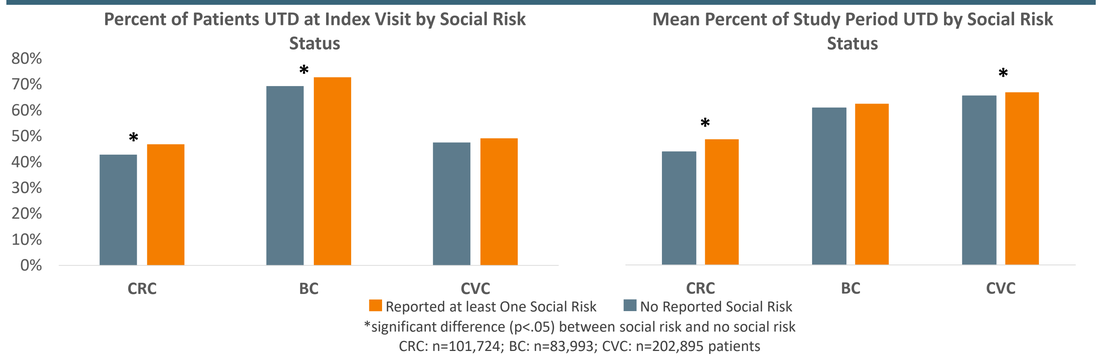
- Reducing cancer disparities requires equitable provision of cancer screenings.
- Social risks can pose barriers to receipt of ordered screening procedures, particularly if the screening is done outside of the primary care clinic (e.g., CRC, BC), which impacts health outcomes and exacerbates health inequities.

Hypothesis: In community health organizations, the presence of patient-reported social risks will not be associated with cancer screening *orders* but will be associated with up-to-date (UTD) *completion* of orders.

Methods

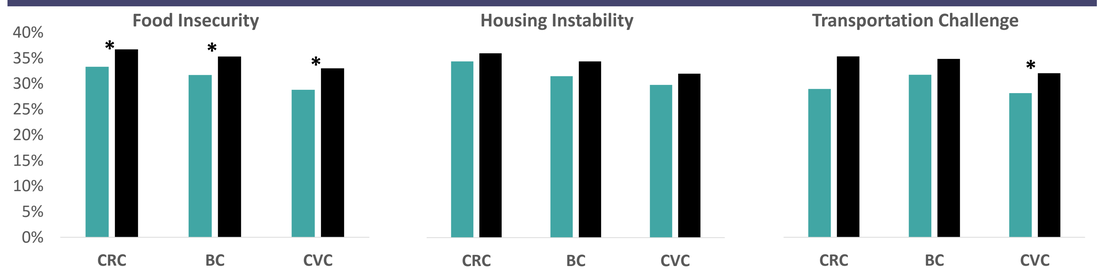
- **Study Design**: Cross-sectional analysis
- **Setting:** Community health organizations in the OCHIN network with documented social risk screening between July 2016 – Feb 2020.
- **Population**: Patients meeting the cancer specific UDS guidelines for CRC, BC, and CVC screening.
- **Analysis:** Screening order and completion rates assessed in patients observed for a year after they were due for screening. EHR data analysis of patient social risk and cancer screening variables used covariate-adjusted generalized estimating equations models.

Cancer Screening UTD by Social Risk Status



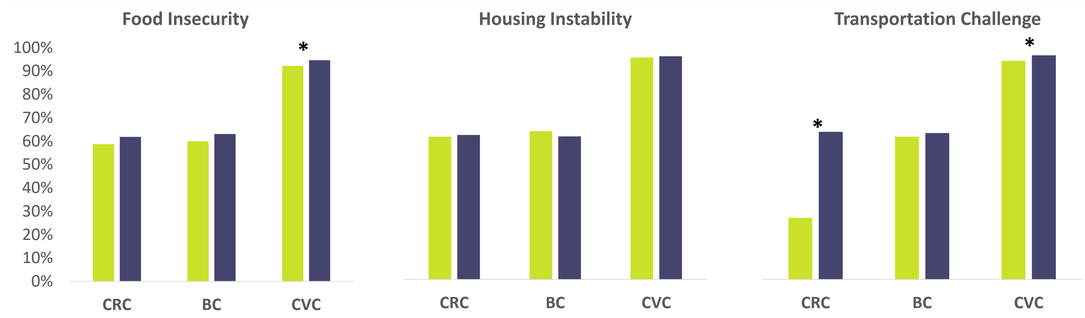
*significant difference (p<.05) between social risk and no social risk
CRC: n=101,724; BC: n=83,993; CVC: n=202,895 patients

Cancer Screening Order Rates by Social Risk Status



* significant difference (p<.05) between social risk and no social risk
CRC: n=101,724; BC: n=25,948; CVC: n=82,145 patients

Cancer Screening Completion Rates by Social Risk Status



* significant difference (p<.05) between social risk and no social risk
CRC: n=34,506; BC: n=8,955; CVC: n=24,582 patients

Learnings

- Patients with ≥ 1 social risk were *less likely* to be UTD for cancer screening
- Patients with ≥ 1 social risk had *lower* cancer screening order & completion rates, though results were *not significant* in most cases and did not conclusively demonstrate a significant association.

Exceptions include:

- Patients reporting food insecurity were significantly less likely to receive orders across all cancer screening categories
- CVC screening order and completion rates were generally lower for patients with ≥ 1 social risk
- Transportation challenges were inversely associated with receipt and completion of CVC screening orders, as well as completion of CRC screening orders.

Implications

- Important for health systems to consider patient social risks when providing cancer preventive care.
- Further research is needed to:
  - better understand barriers to guideline-concordant cancer screenings associated with social risks.
  - develop and test interventions that improve cancer preventive screening rates by prompting clinical teams to consider patients' social needs when providing screening recommendations.

Next Steps

- Support an R01 proposal to develop and test EHR clinical decision support tools providing care plan adaptions for patients with social risks due for cancer screenings.

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