

Utilizing Social Determinants of Health Research to Assess Mobile Community Needs: Comparing Patient Reported Social Determinants of Health

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Background

The West Virginia University Cancer Institute (WVUCI) provides world-class care to West Virginians close to home. While growing its stationary regional care network and increasing access to clinical services, mobile breast and lung cancer screening units travel to communities throughout the state further expanding the WVUCI's footprint in WV. Mobile cancer screening provides the state's most rural residents and underserved populations the highest quality of care through increased access to service, decreased travel time, and funding for under- and uninsured patients meeting eligibility criteria. Both units are led by the Department of Cancer Prevention and Control staff and are operated by WVU Hospitals. Working with local clinics, businesses, community organizations, and medical providers, the Program works to reduce the impact of cancer in West Virginia (WV) through early cancer detection.

Project Outline

Are there differences in inequities patients experience in standing facilities versus mobile facilities and if so, are the inequities different in breast cancer screening versus lung cancer screening?

This project, funded through the Mobile Healthcare Innovation Collaborative, ran from September 2022 until May 2023 to evaluate the differences in social determinants of health between patients served at the mobile cancer screening unit versus standing cancer screening facilities in West Virginia. The study also looked at differences between lung and breast cancer screening in both settings patients were given a 13-question survey derived from the Centers for Medicare & Medicaid Accountable Health Communities Health-Related Social Needs Screening Tool to self-report their needs in seven areas: exercise days per week, exercise minutes per day, education, income, tobacco use, depression, and hopelessness.

Approximately 400 patients were surveyed, 100 from each of the facilities:

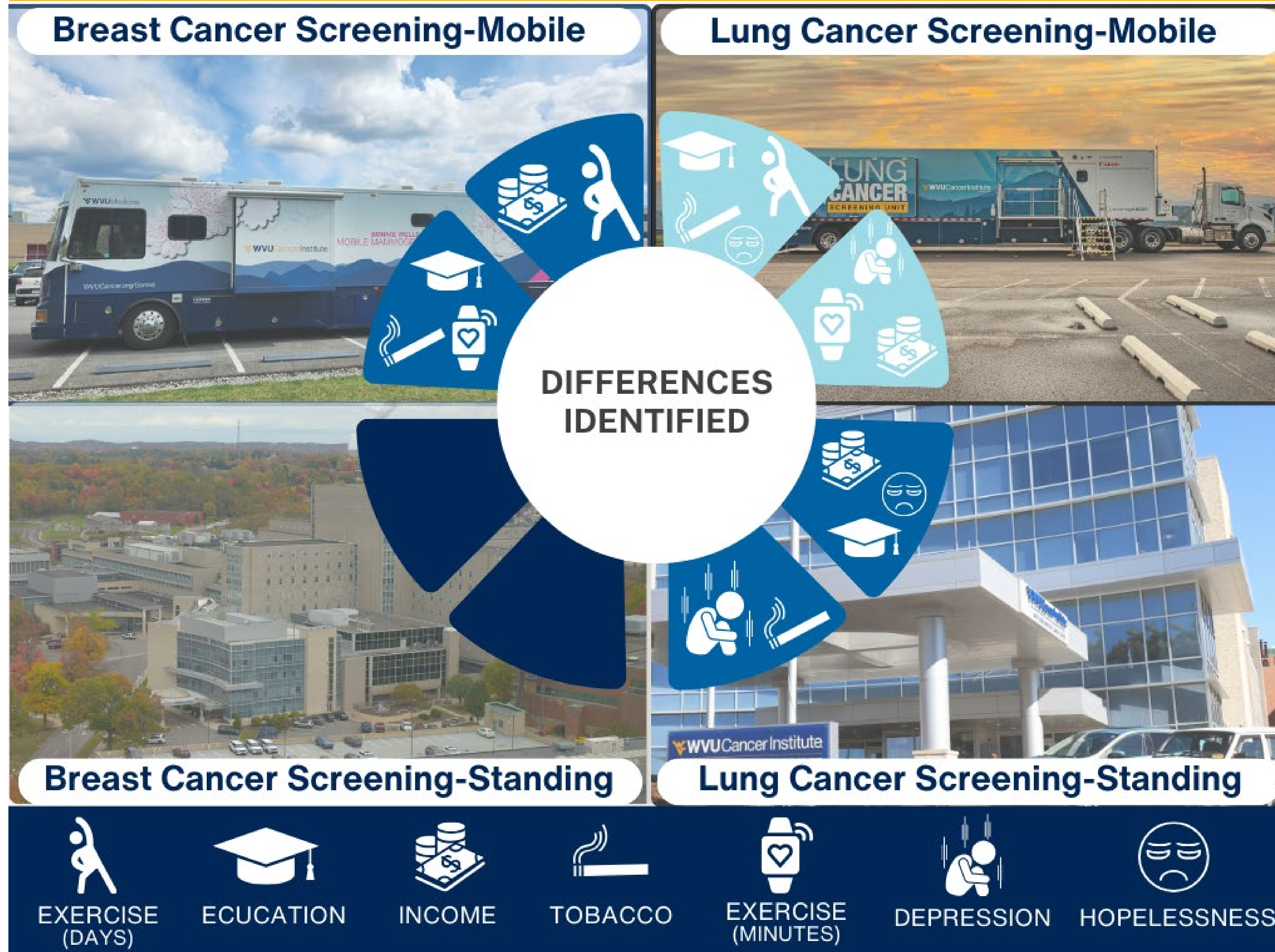
Standing Facilities

- Betty Puskar Breast Care Center
- West Virginia University Cancer Institute

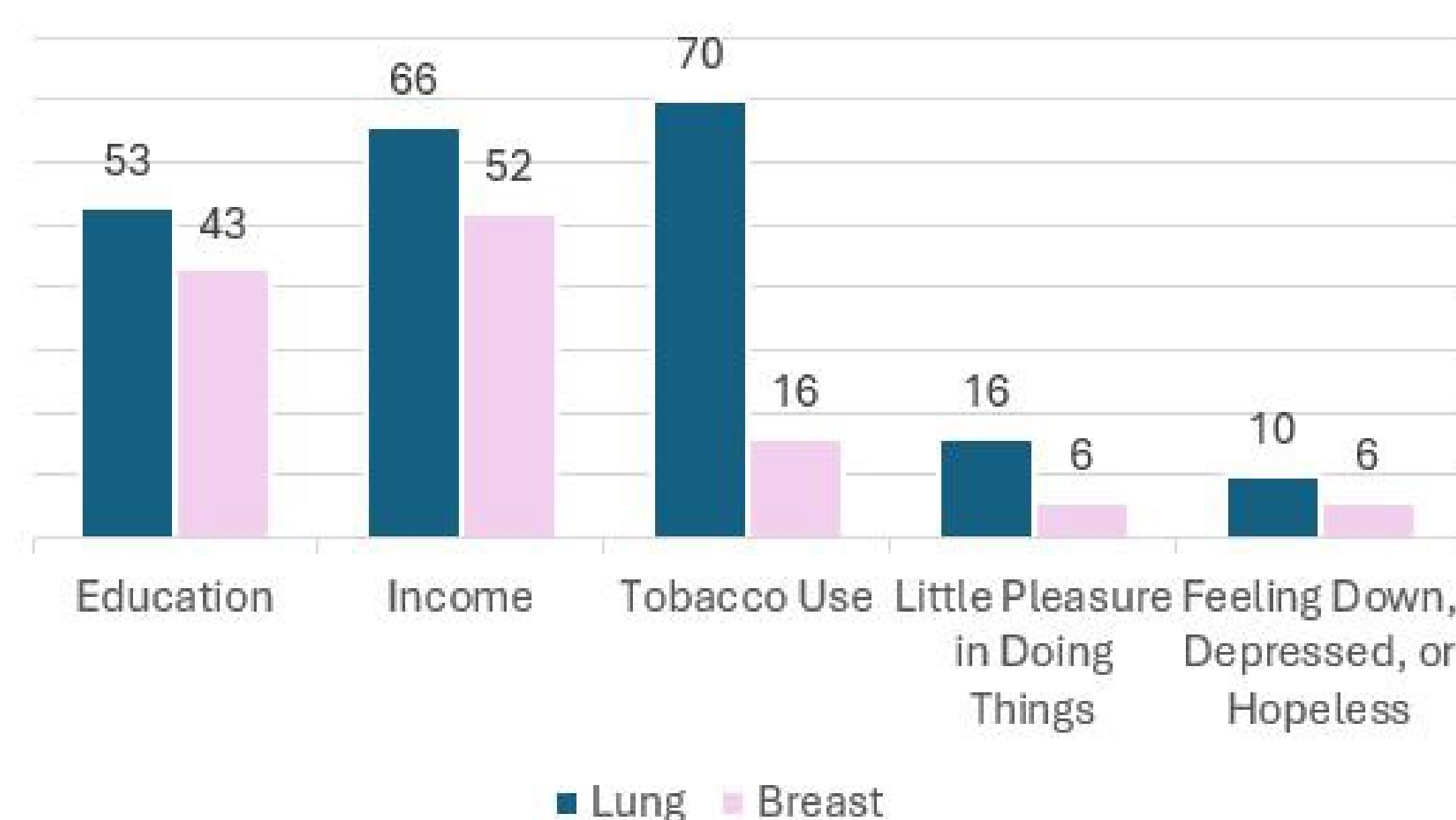
Mobile Screening Units

- LUCAS Lung Cancer Screening Unit
- Bonnie's Bus Mobile Mammography Unit

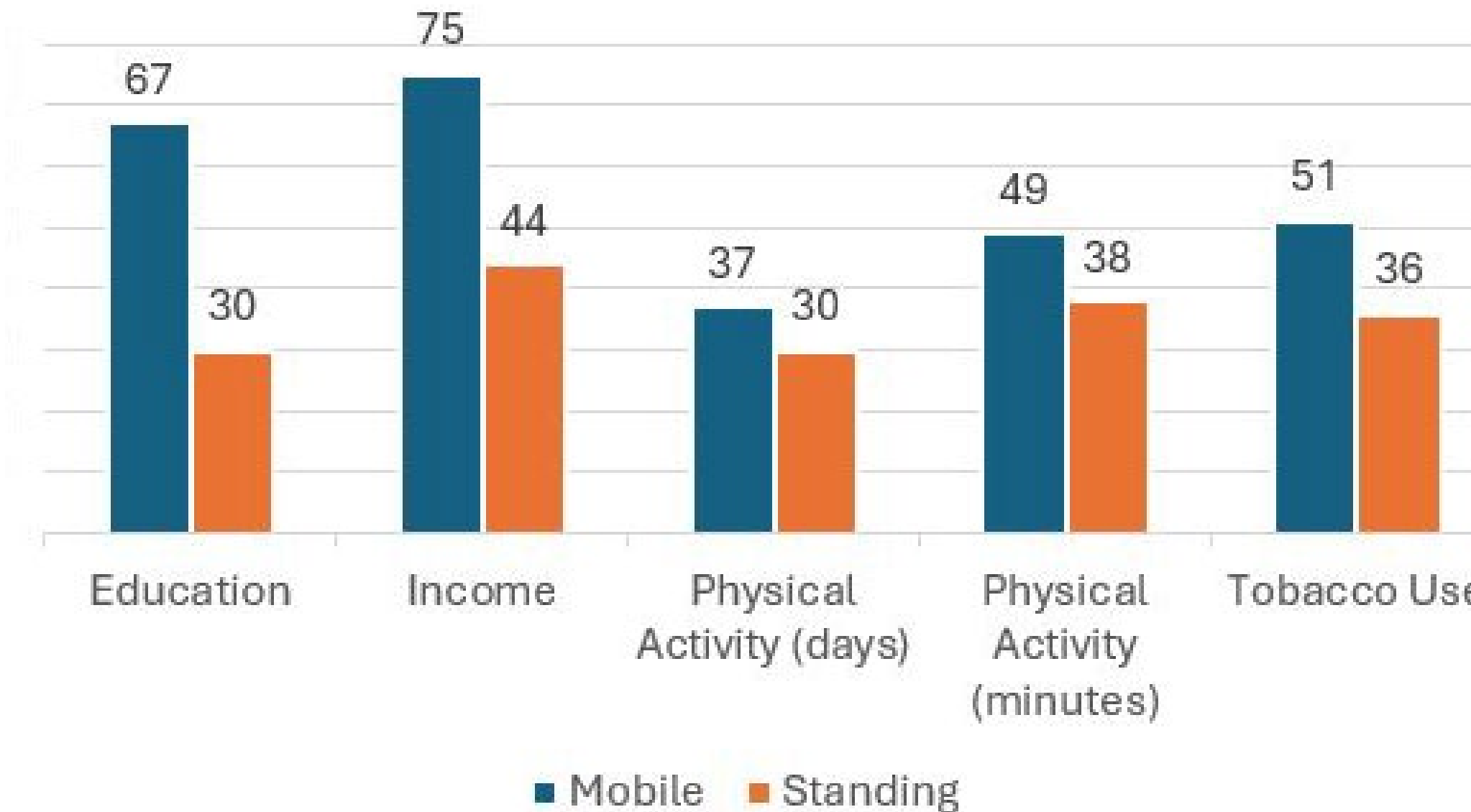
Key Takeaway: Patient needs differ depending on the cancer screening site (lung vs breast) and by screening location (standing vs mobile).



Lung Cancer vs Breast Cancer Screening Patient Needs



Mobile Unit vs Standing Facility Patient Needs



Results

With over 400 surveys collected, the study's results proved statistically significant differences in several areas of social determinants of health between patient populations. This data will help staff at screening locations identify the patient's needs and assess the effectiveness of providing additional referrals and community services to people close to home.

A few key outcomes are highlighted below, independent-sample t-tests were used to calculate between-group differences.

Educational Differences
Educational levels were higher for standing facility patients compared to mobile unit patients. $P = -1.360$ $p < .001$.

Income Differences
Income levels were higher for breast cancer screening patients compared to lung cancer screening patients. $P = .647$ $p < .001$.

Depressive Feelings Differences
These feelings of having little pleasure were higher for lung cancer screening patients compared to breast cancer screening patients. $P = -.193$ $p = .015$.

Next Steps

Utilizing community and partner support, we plan to expand the survey locations and increase the number of participants, allowing our team to further evaluate the data by county, zip code, and socioeconomic status. To continue the project's success our team is exploring options to increase local support services at clinical partner sites and developing tailored resources in certain regions.

The team is disseminating the results and expanding idea generation with our clinics and partners while seeking additional opportunities for the dissemination of results. The results of this study can inform policy, and systems change that can benefit not only patients but entire communities.

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