Bridging the Gap: Understanding Prostate Cancer Patient Characteristics in Clinical Trials

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BACKGROUND

- Prostate cancer is a significant global public health concern and ranks among the most diagnosed malignancies among men.
- Participation in clinical trials is crucial for advancing understanding and treatment of the disease.
- However, participation in clinical trials is influenced by the complex interplay of demographic, socioeconomic, and systemic barriers.

OBJECTIVE

This study investigated the characteristics and patterns of clinical trial participation among patients diagnosed with prostate cancer in the United States.

METHODS

- The Premier PINC AI™ Healthcare Database was used to identify men aged 18+ who had an encounter for prostate cancer, identified by the International Classification of Diseases, Tenth Revision (ICD-10) diagnosis code C61 (malignant neoplasm of prostate), between January 1, 2016 and December 31, 2022.
- Clinical trial participation was defined by the presence of ICD-10 diagnosis code Z00.6 (encounter for examination for normal comparison and control in clinical research program).

RESULTS

- A total of 994,426 men with prostate cancer were identified, with a mean age of 70.6 and a mean Charlson comorbidity index (CCI) score of 3.78.
- The majority of identified patients were White, non-Hispanic **(Figure 1)**, and primarily located in the Southern region of the United States.
- Among this cohort, 9,743 individuals (0.98%) participated in clinical trials.
- Clinical trial participants were significantly older, had a higher mean CCI score, and were more likely to be located in urban areas than non-participants **(Table 1)**.
- Ethnicity, race, and census region were significantly associated with clinical trial participation. Compared to non-participants, a significantly higher proportion of participants were non-Hispanic **(Table 1)**, White **(Figure 2)**, and located in either the Midwest or the Northeast region of the United States **(Figure 3)**.

Figure 1. (A) Ethnicity and (B) Racial Breakdown of All Identified Prostate Cancer Patients

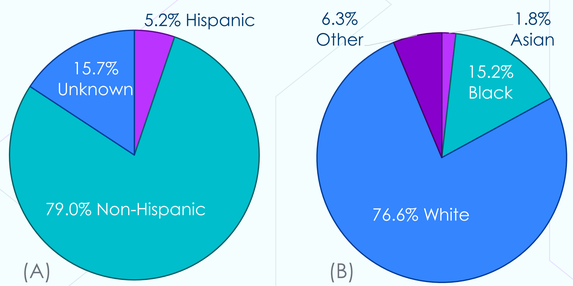


Table 1. Age, CCI Score, Urban Area, and Ethnicity Comparison of Participants vs. Non-Participants

	Participants	Non-Participants	p-value
Age, mean	73.7	70.5	p<0.0001
CCI score, mean	5.59	3.76	p<0.0001
Urban area, %	92.3	85.5	p<0.0001
Non-Hispanic ethnicity, %	80.3	79.0	p<0.05

Figure 2. Racial Breakdown of Participants vs. Non-Participants

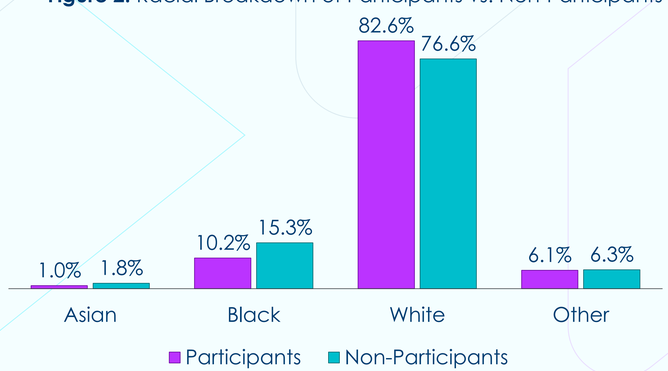
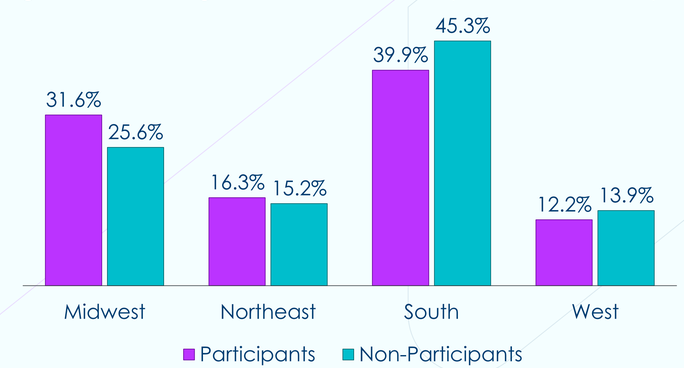


Figure 3. Census Region Breakdown of Participants vs. Non-Participants



CONCLUSIONS

- This study underscores the critical importance that multifaceted demographic and clinical factors influence clinical trial participation in prostate cancer patients.
- Understanding demographic and clinical factors that influence clinical trial participation is critical for addressing disparities and guiding interventions.
- Thus, these insights offer a foundation for developing tailored strategies to optimize patient care and foster innovation in therapeutic interventions.

LIMITATIONS

- Although the Premier PINC AI Healthcare Database is broadly representative of US hospitals, the results of this study do not reflect healthcare encounters that occurred at hospitals outside of the database.
- Retrospective database analyses are subject to claims data limitations, including incomplete data and coding inaccuracies.
- The observational design precludes the establishment of causality and unmeasured confounders, which may have influenced the results.

DISCLOSURES

This study was funded by Boston Scientific. Alysha M. McGovern, Abimbola O. Williams, and Liesl M. Hargens are full-time employees of, and shareholders in, Boston Scientific.