

(MP75-17) Ethnic Variation in Prostate Cancer Detection: A Hypothesis Generating Study for use of the Stockholm3 Test in an American Cohort

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Problem: Black men have a higher incidence and mortality of Prostate Cancer compared to White men



1. Clinical information (*Age, Family History, Previous Biopsy*)
2. Protein Markers (*Total PSA, free PSA, hk2, MSMB, MIC-1*)
3. Genetic Markers (*+100 Genetic Markers*)

Chicago		
African American	Non-Hispanic Caucasian	Hispanic Caucasian
60%	12%	21%

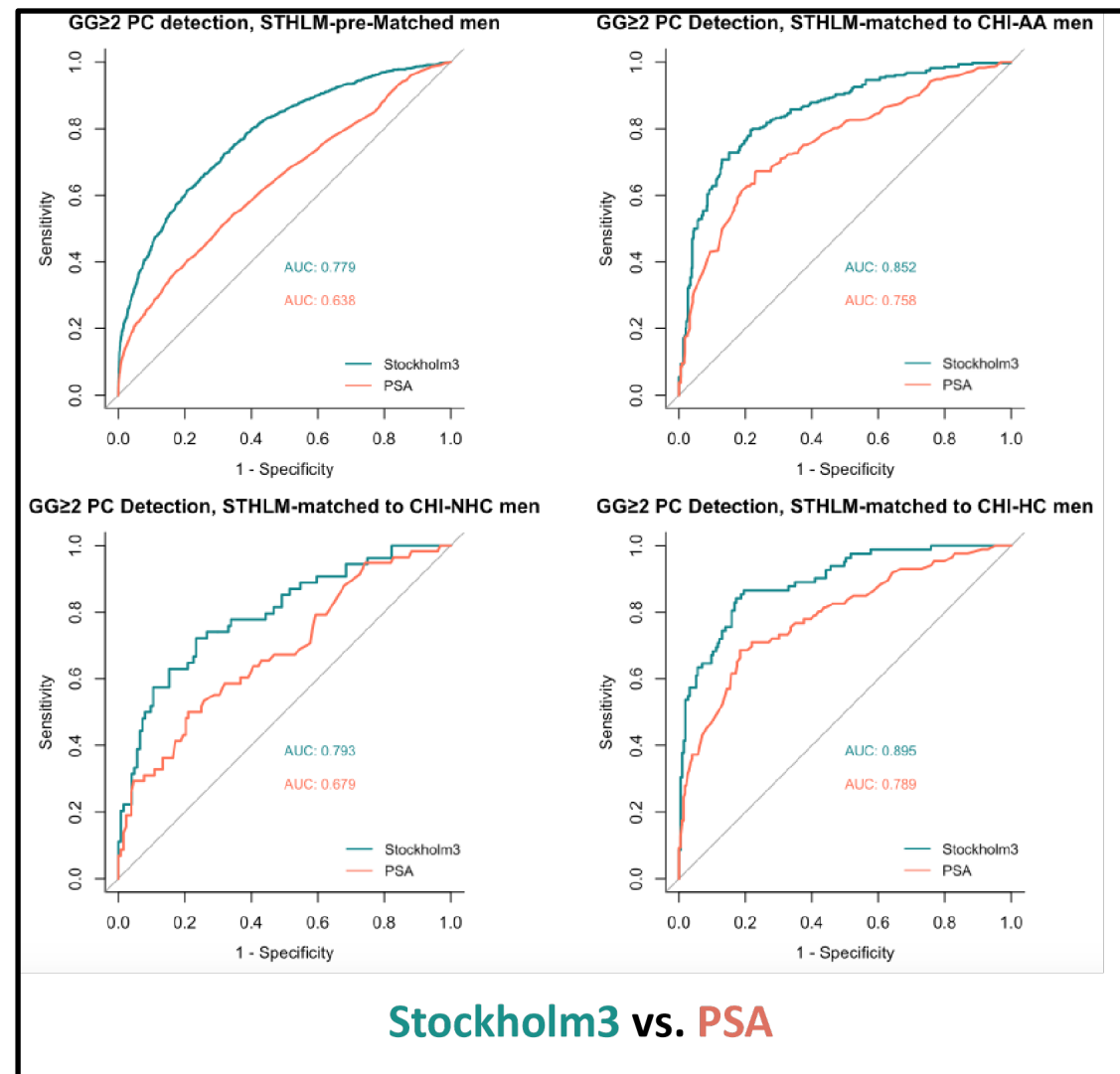
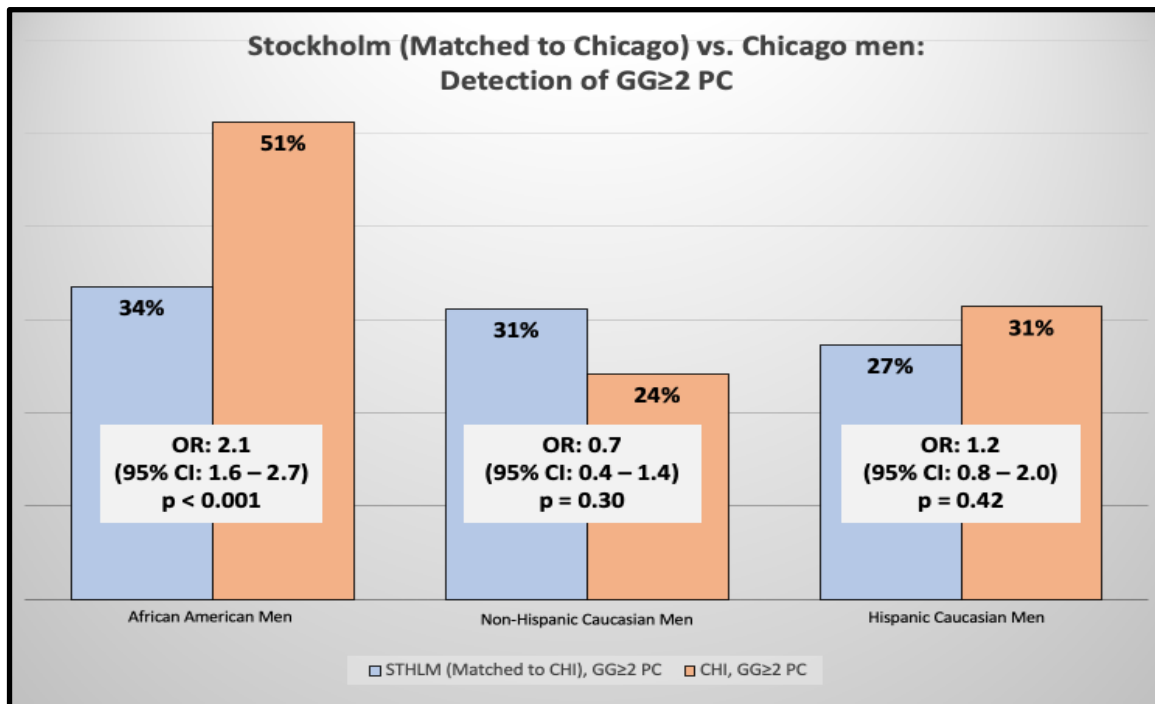
<u>Co-variates for PS matching</u>	Stockholm Men (n = 6,980)	Chicago African American (AA) Men (n = 303)	Stockholm men matched to AA (n = 1,170)
<u>Age*</u>	62.8 years	60.5 years	59.8 years
<u>PSA*</u>	5.0 ng/mL	12.4 ng/mL	12.9 ng/mL
<u>Prostate Volume*</u>	44.7 cc	43.0 cc	39.9 cc
<u>Family History of PC</u>	15.1%	23.9%	24.5%
<u>5-alpha Reductase Use</u>	2.3%	3.1%	3.5%
<u>Previous Negative Biopsy</u>	6.0%	6.1%	8.0%

Study Design

- Retrospective analysis
- Men who underwent prostate biopsies; Age: 50-69
- Swedish Men** from May 2012 to May 2013, total: n = 7,417, matched: n = 6,980
- Chicago Men** from June 2016 to July 2019, total: 634, matched: n = 504
- Propensity Score Matching
- Detection of ISUP GG \geq 2 PC on biopsy

Results

African American men:
2.1 OR for GG≥2 PC



AUC (95% CI)	PSA	Stockholm3
Pre-Match	0.67 (0.65 - 0.68)	0.78 (0.76 - 0.79)
African American	0.76 (0.72 - 0.79)	0.85 (0.82 - 0.88)
Caucasian Non-Hispanic	0.68 (0.60 - 0.76)	0.79 (0.72 - 0.87)
Hispanic Caucasian	0.79 (0.73 - 0.85)	0.90 (0.85 - 0.94)