



West Park
HEALTHCARE CENTRE

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Using the FIM to Evaluate Health Equity Best Practices **2018** Day

May 25, 2018



Purpose

- to investigate possible health inequities among rehabilitation inpatients as indicated by the Functional Independence Measure (FIM) instrument

Methods

- Data were merged from the NRS and HE database
- HE survey comprises eight elements:
 - **spoken language**
 - **country of birth**
 - **racial or ethnic group**
 - disability
 - gender
 - sexual orientation
 - income
 - the number of people supported by the reported income.

Analysis

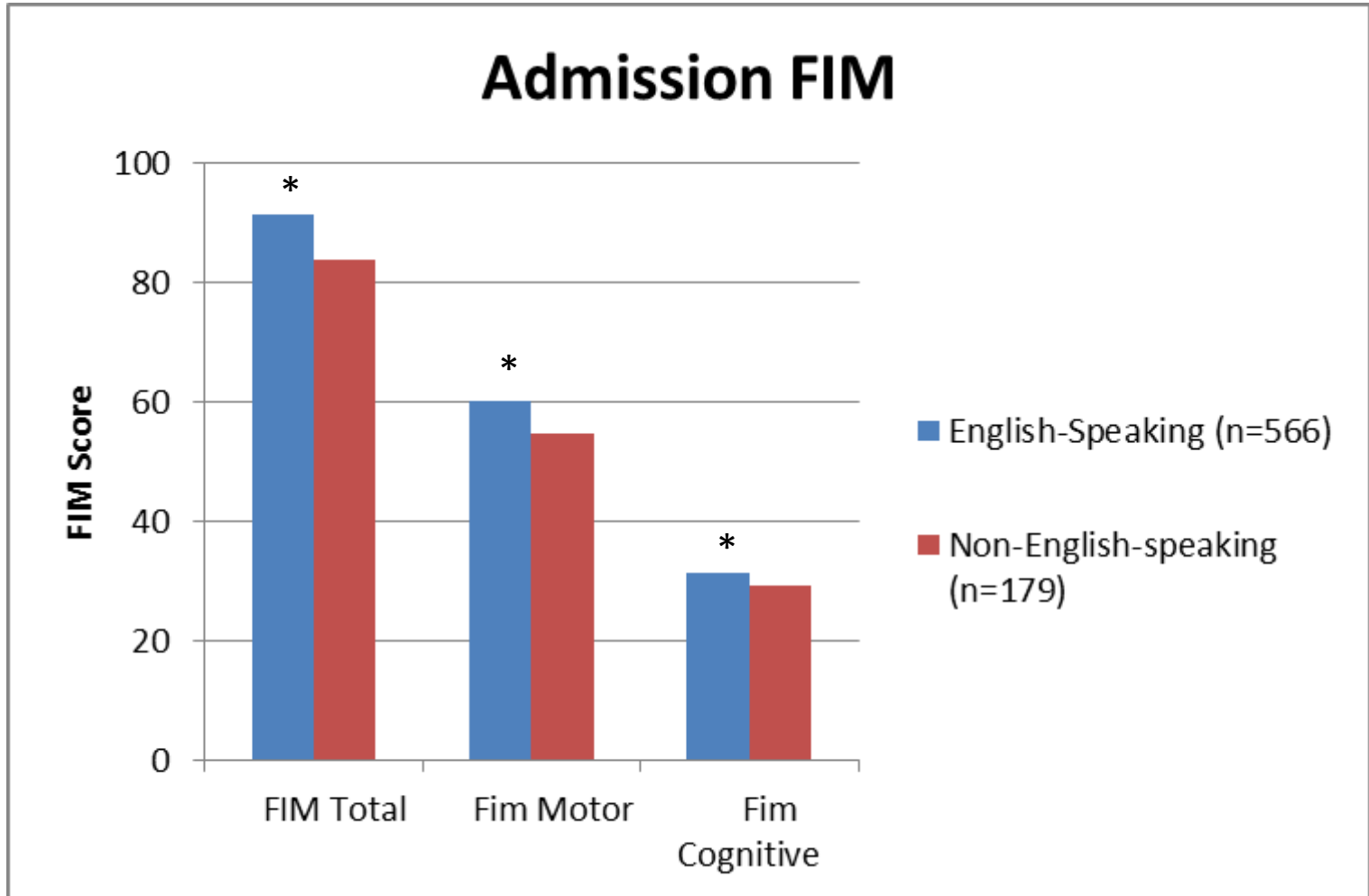
- Multivariate Analysis of Variance (MANOVA) was used to test for differences between HE sub-groups
- Age, gender and number of comorbidities were included as covariates in the MANOVA model.
- As there were more than two sub-groups for Ethnicity, independent samples t-tests were conducted to determine pairwise differences where a main effect was detected by the MANOVA

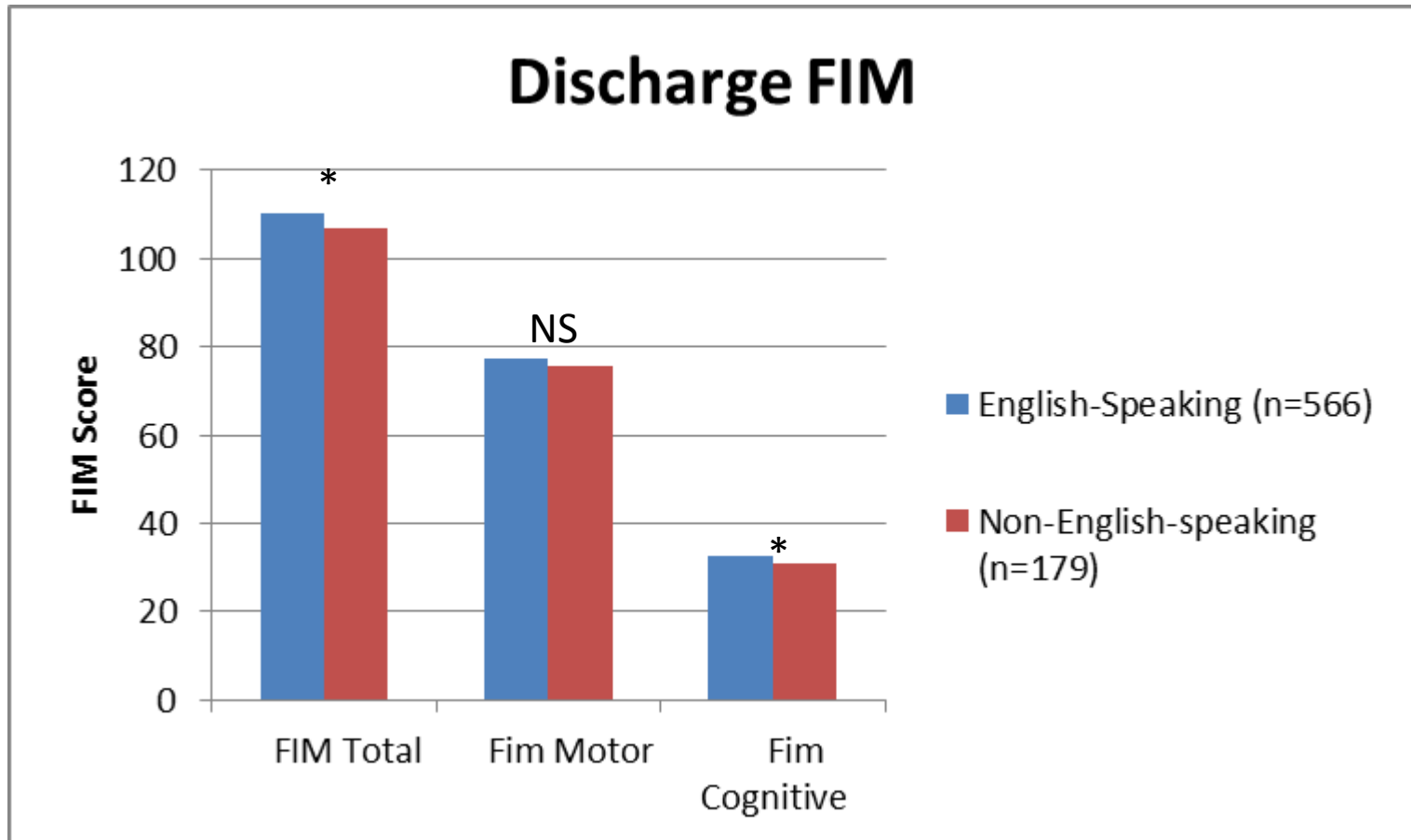
Results

- During the study period, 745 pts had completed HE and FIM data
- Subjects were 66.1 ± 16.1 years of age
- There were 342 (45.5%) female and 403 (54.5%) male patients
- The mean length of stay (LOS) was 28.7 ± 18.5 days (range 4-92 days)

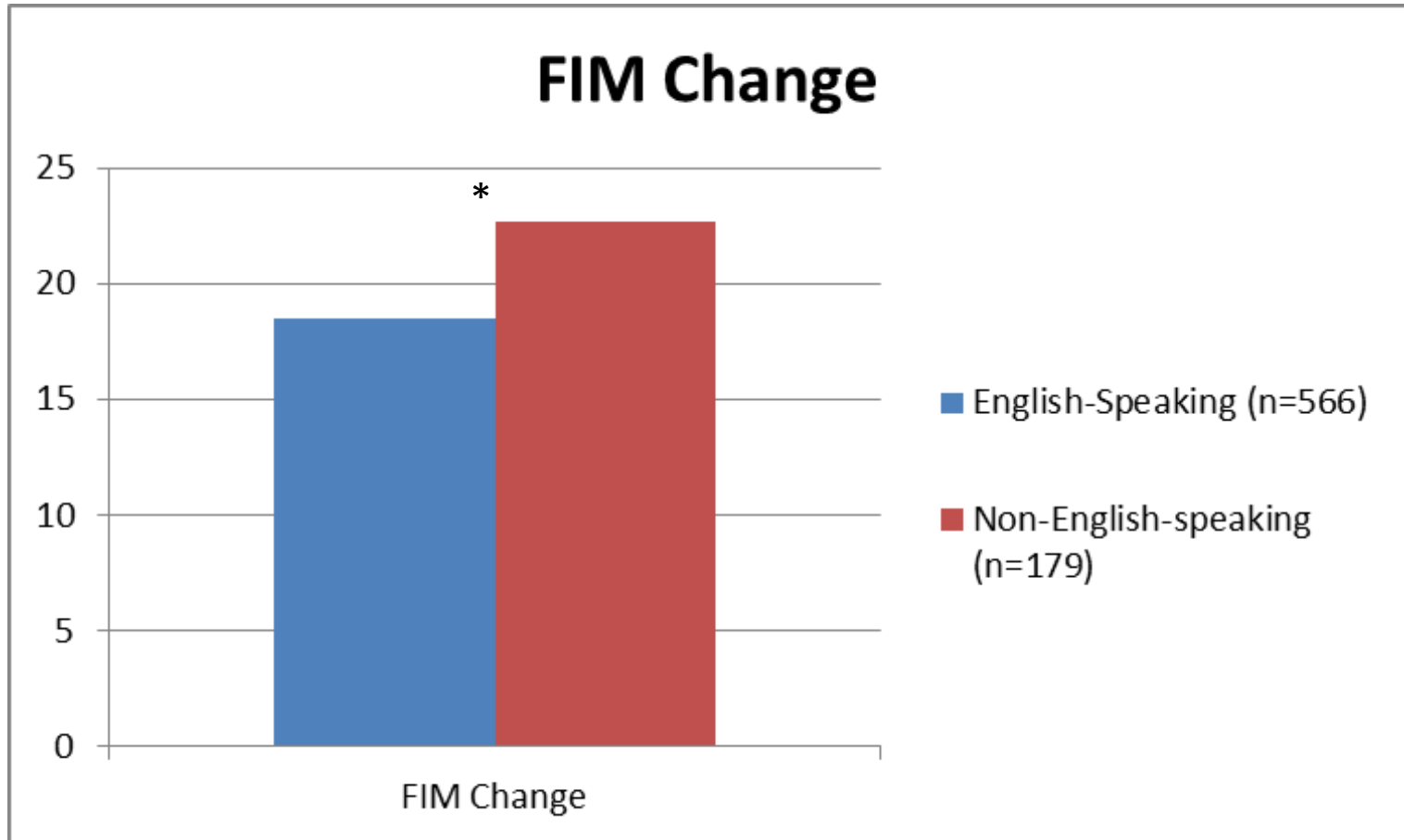
Language

English Speaking





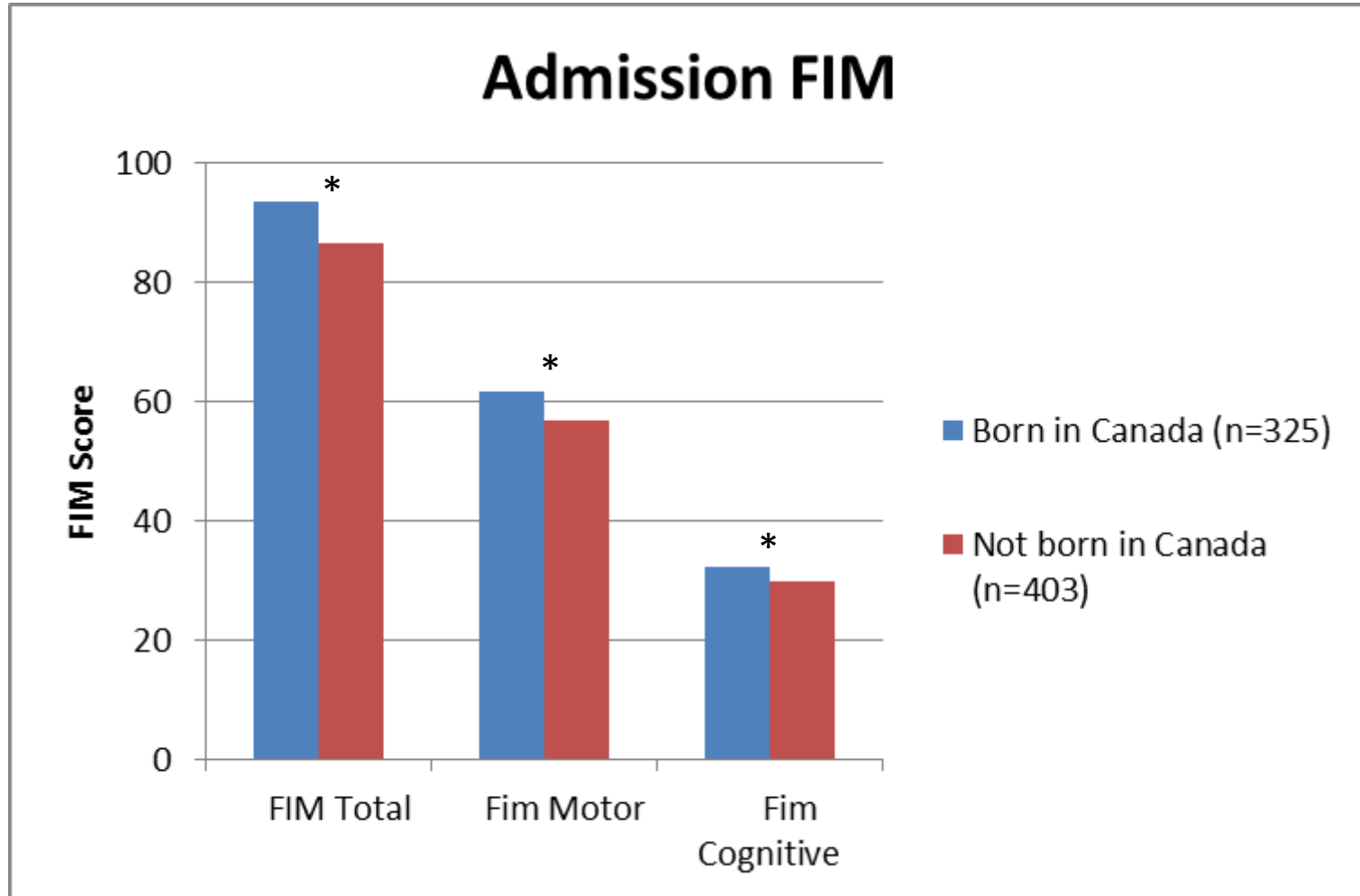
English Speaking



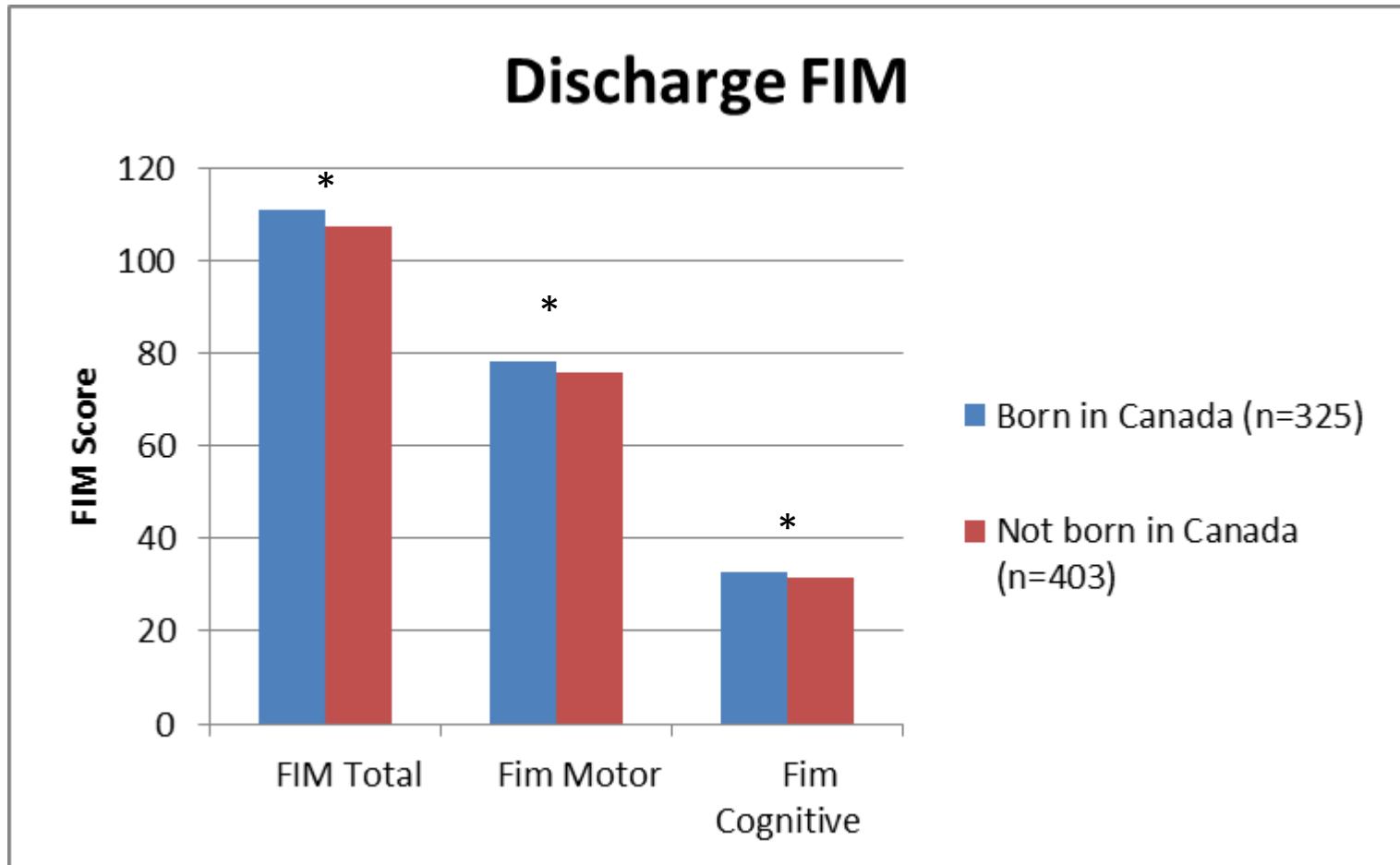
- **Admission:** mean Total FIM score of patients born in Canada is **9.1% higher** than those not born in Canada (91.5 vs. 83.9, $p < .001$)
- **Discharge:** discrepancy is reduced to **3.4%** (110.0 vs. 106.6, $p < .05$)
- **Difference reduced by 63%**
- Though the FIM score of those not born in Canada remained statistically lower at discharge, their FIM score increase was **statistically greater** (22.7 vs. 18.5, $p = .01$)

Country of Birth

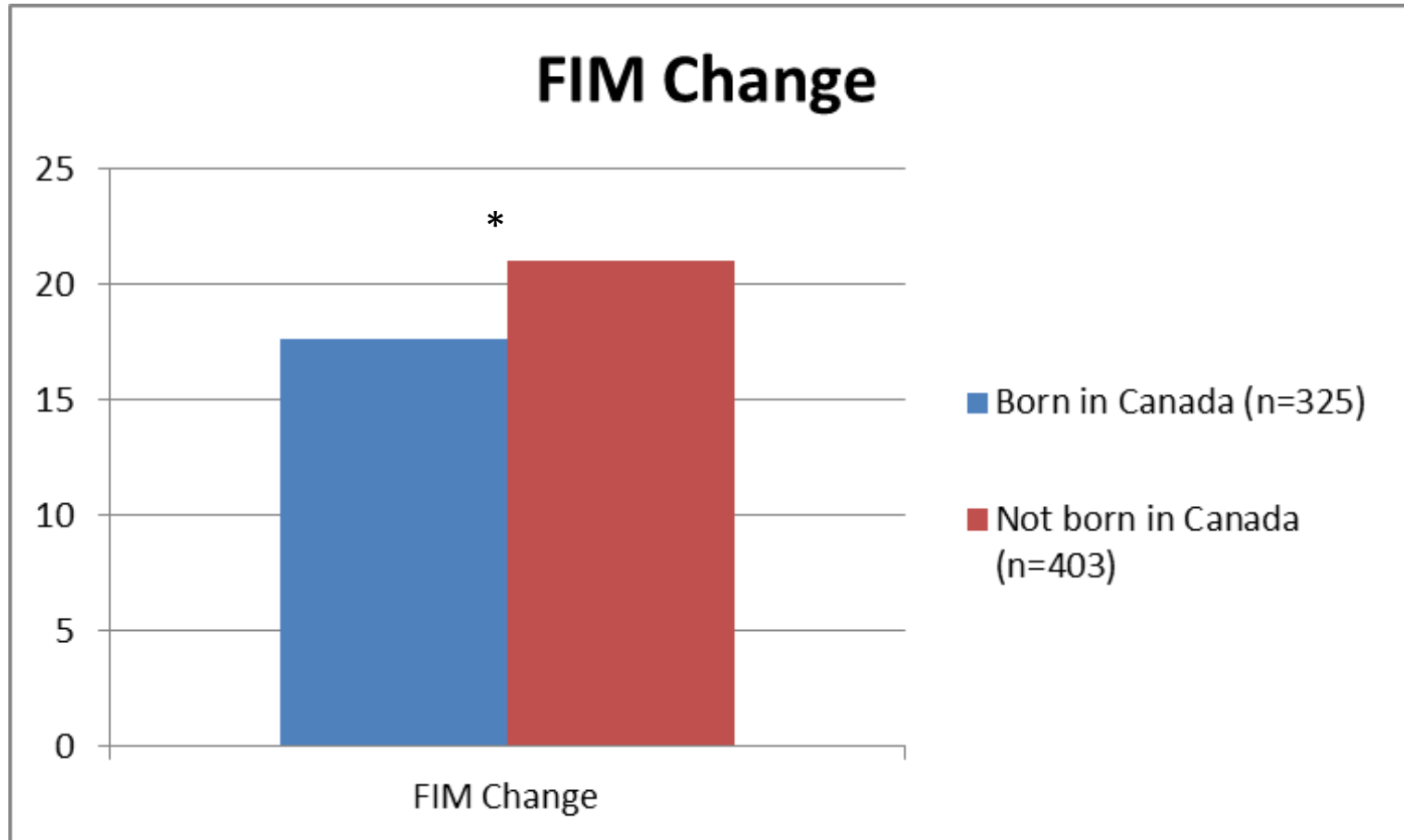
Born in Canada



Born in Canada



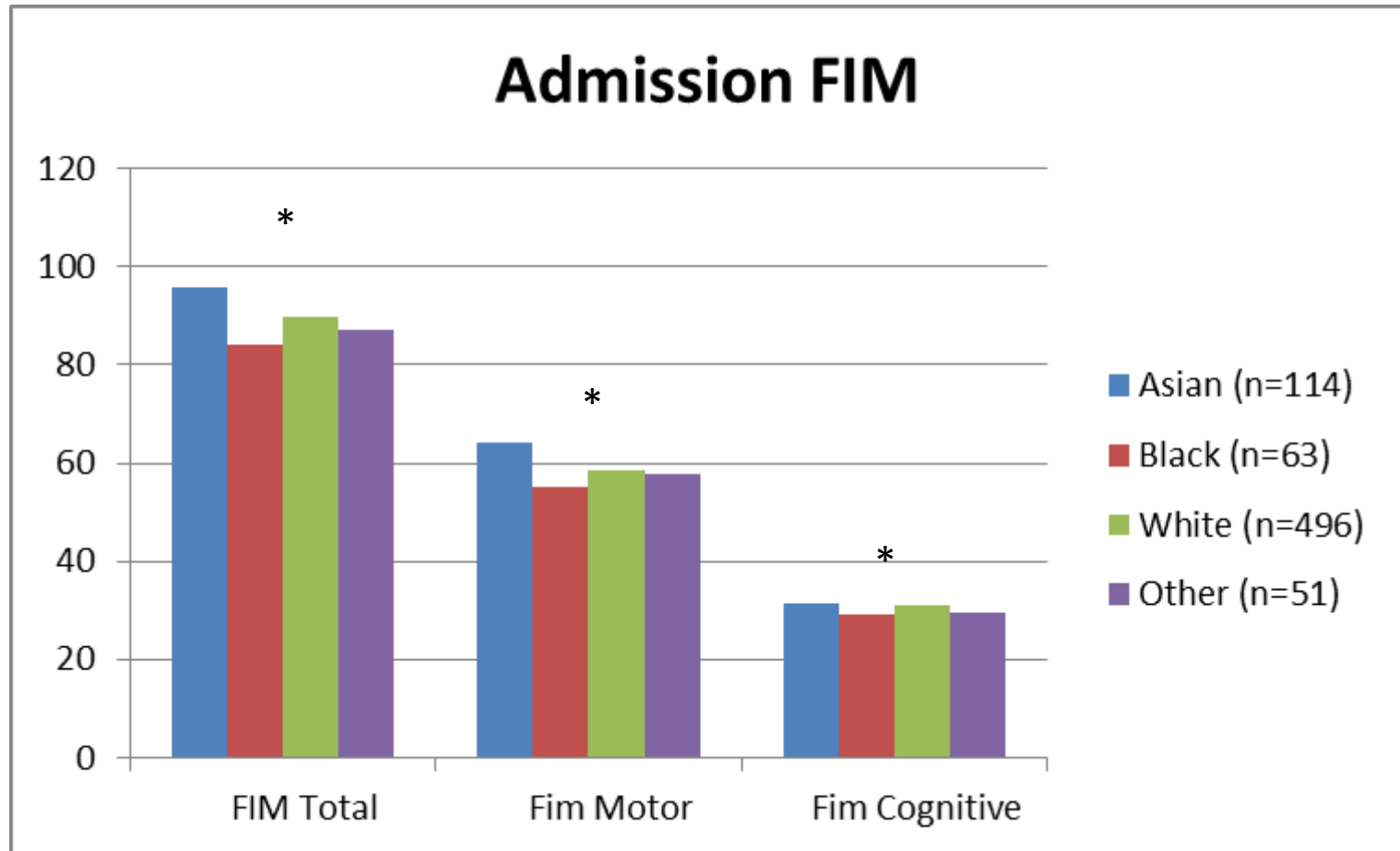
Born in Canada



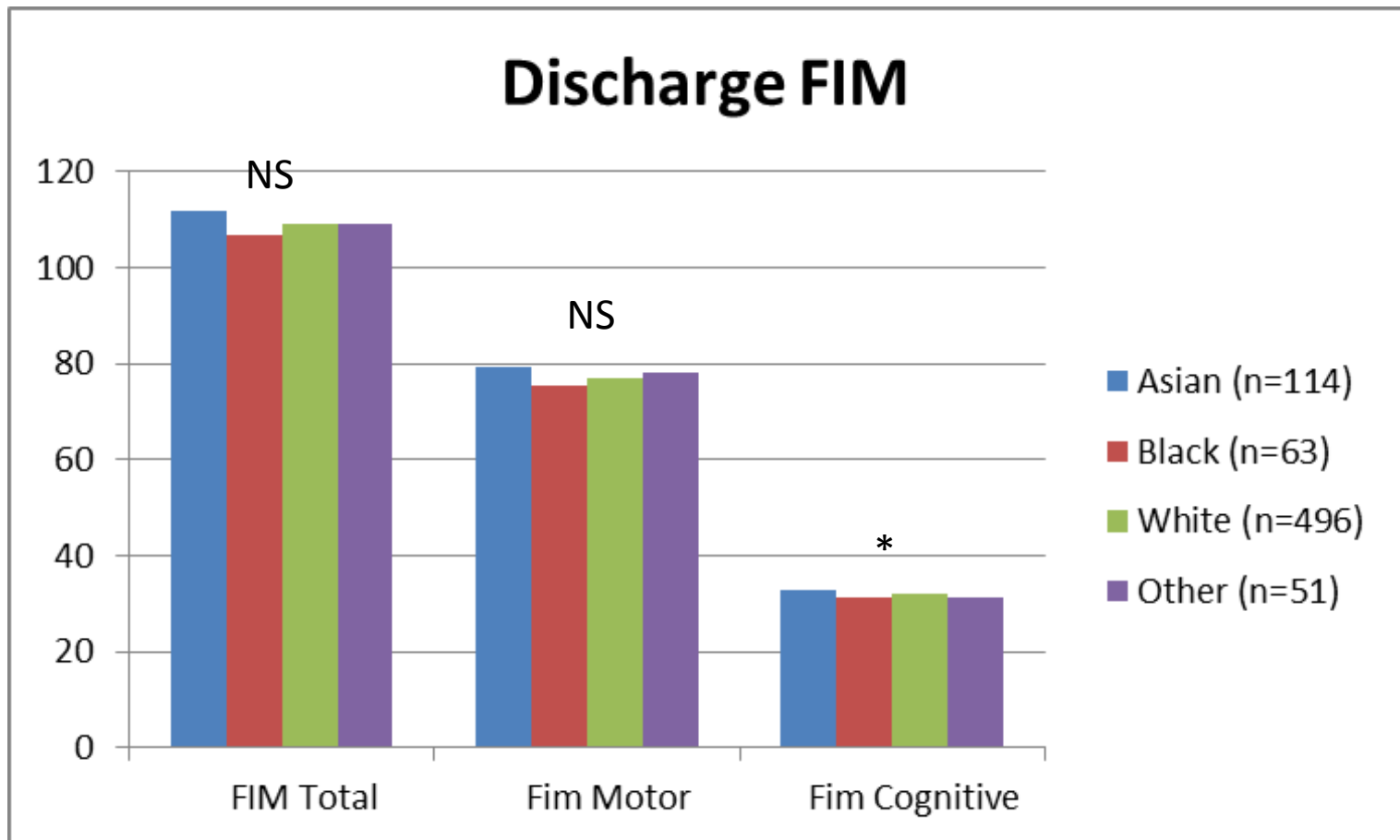
- **Admission:** mean Total FIM score of patients born in Canada is **8.1% higher** than those not born in Canada (93.6 vs. 86.6, $p < .001$)
- **Discharge:** discrepancy is reduced to **3.3%** (111.2 vs. 107.6, $p < .001$)
- **Difference reduced by 59%**
- Though the FIM score of those not born in Canada remained statistically lower at discharge, their FIM score increase was **statistically greater** (21.0 vs. 17.6, $p = .001$)

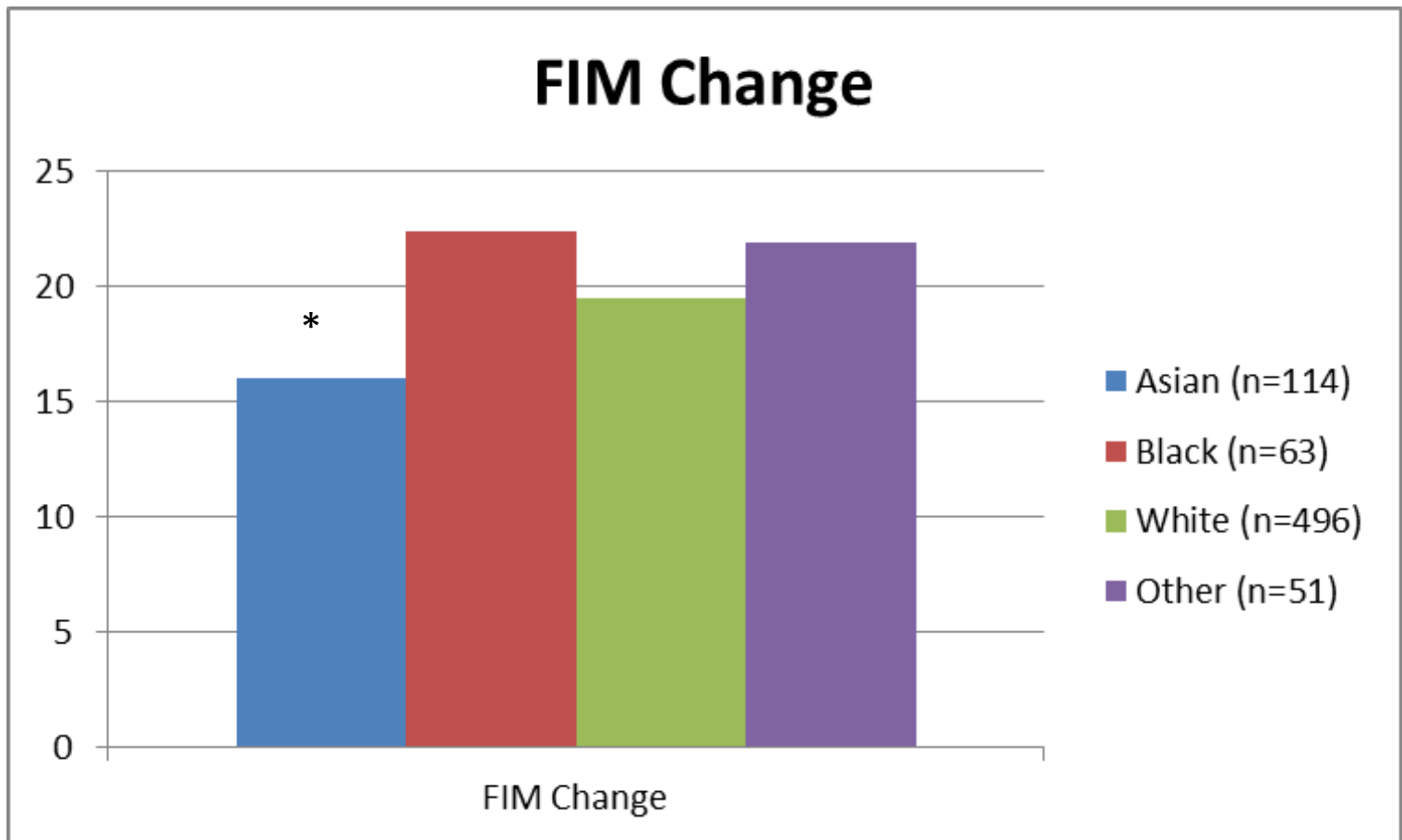
Self-Identified Ethnicity

Ethnicity



Ethnicity





- **Admission:** mean Total FIM score of Asian pts is **13.6% higher** than black pts (95.7 vs. 84.2, $p < .01$)
- **Discharge:** discrepancy is reduced to **4.7%** (111.7 vs. 106.7, $p < .05$)
- **Difference reduced by 65%**
- Though the FIM score of black pts remained statistically lower at discharge, their FIM score increase was **statistically greater** (22.5 vs. 16.0, $p = .01$)

- Significant achievements made in **reducing the disparity** in FIM scores when patients partitioned by language, country of birth or ethnicity
- Though some disparity remains at discharge, groups with the lower FIM group at admission demonstrated much **greater gains** during their LOS
- Continued monitoring of FIM performance by HE category will support interventions to reduce these discrepancies further

Questions?

