

Understanding Disparities in Primary Care: Boston Medical Center

Problem Statement: Widespread research has demonstrated the existence of **significant racial & ethnic disparities** in **access to, quality of, and outcomes** in **healthcare** globally.

Despite BMC's demonstrated commitment to serving their diverse community and understanding and addressing social determinants of health, they **do not have an understanding of how** racial and ethnic disparities specifically manifest in their patient population.

COVID-19 has amplified existing racial and ethnic health disparities, while illuminating these disparities in the mainstream. With a **vaccine imminent**, BMC is **concerned** about how these racial and ethnic disparities could **further hurt communities of color**.

Scope of Work



Data



Flu Vaccination



Colonoscopy

- Understand structure of and processes behind available data
- Develop an understanding of the demographics of patient sample
- Analyze how racial & ethnic disparities manifest in BMC's patient population - qualitatively & quantitatively

Early Challenges & Opportunities



Exploring and understanding the data **revealed** a number of learning **opportunities around data quality, consistency, and process:**

Limiting issues

- Race data was inaccurate and could not be used (no Hispanic/White, all Haitian/White mismatches)

Resolved issues

- The initial dataset showed a majority of patients as 'not applicable' for requiring the flu vaccine

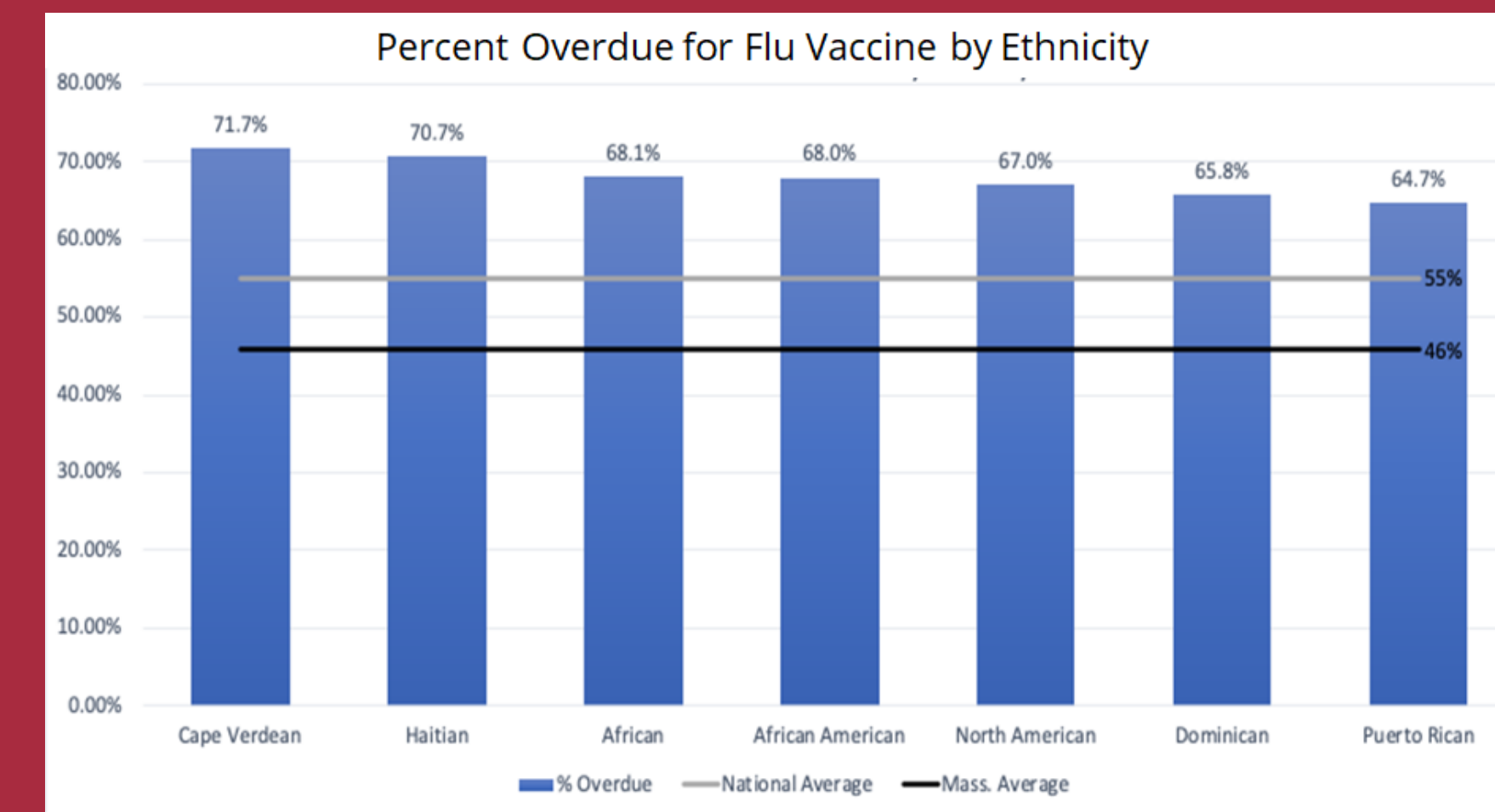
Issues that re-directed us

- Half of the patients in the sample do not have ethnicity data, so we had to use language data in much more detail

Challenges to inform the future

- Structures of Ethnicity categories ("Asian Indian" often selected by Korean speakers)

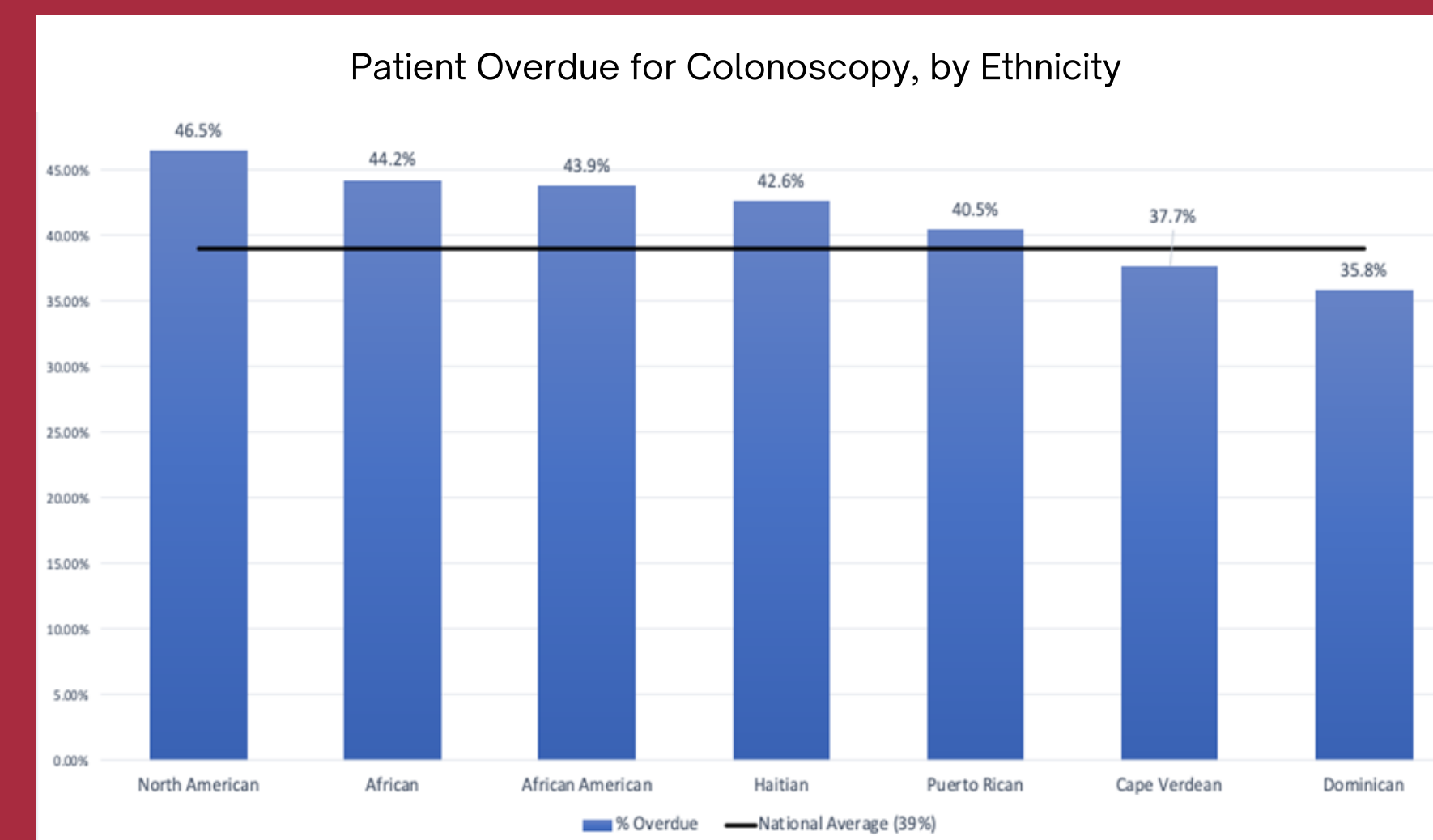
Selected Findings



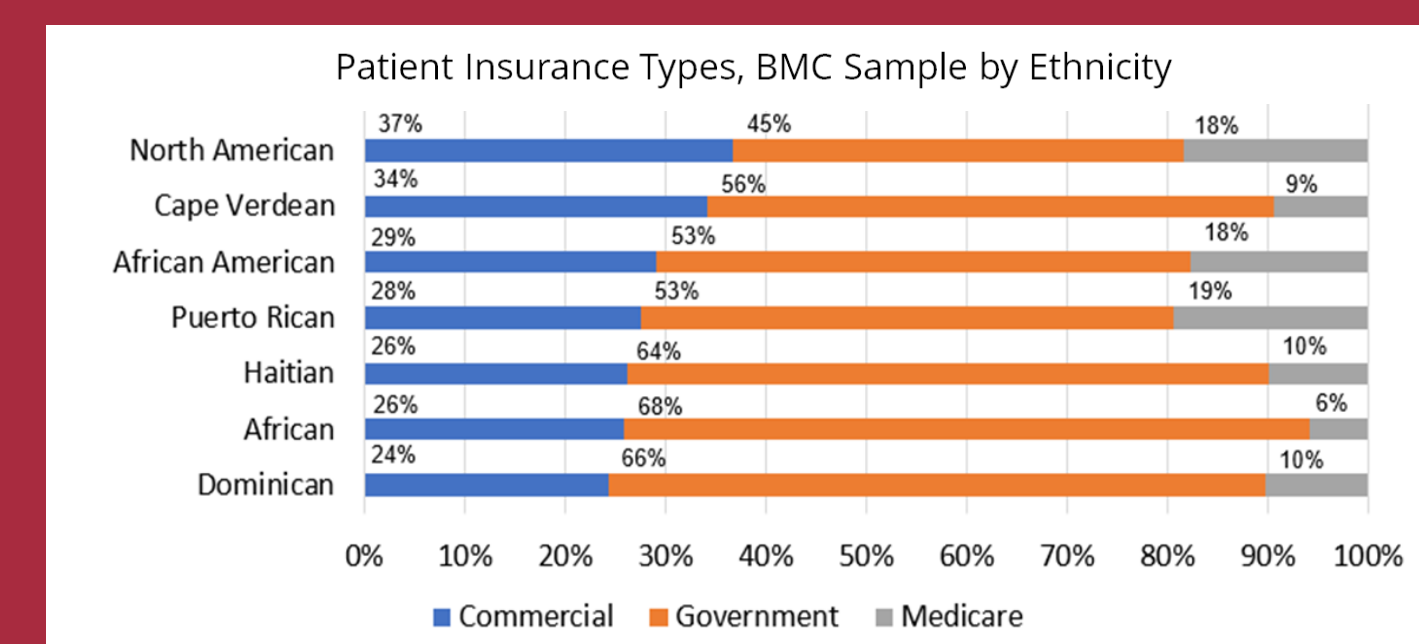
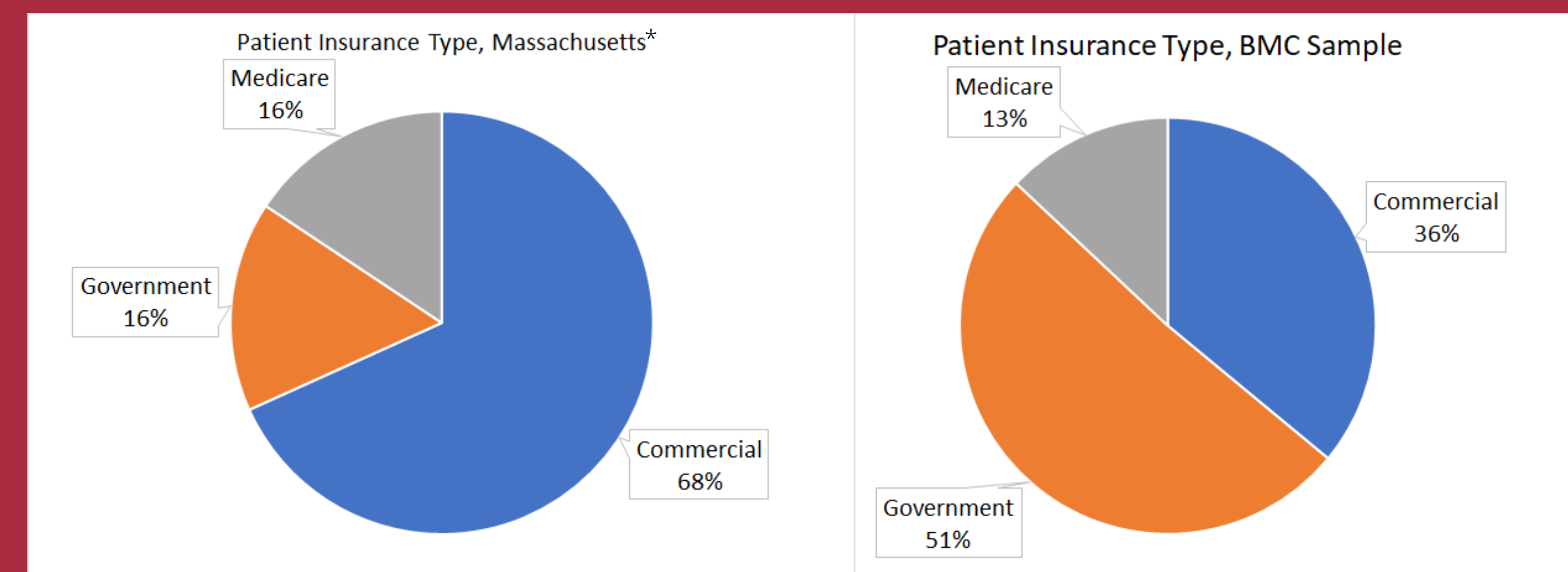
Colonoscopy



- BMC's sample population is **behind national averages** for colonoscopy coverage across all ethnicities
- Differences exist:** rates of colonoscopy coverage for North Americans and Africans are 3-9% lower than the sample average and other ethnicities.
- Males** mostly have **worse** overdue rates than females & **Worst** overdue rates are in the **50-59 age range**



Patient Insurance Types



Flu Vaccination

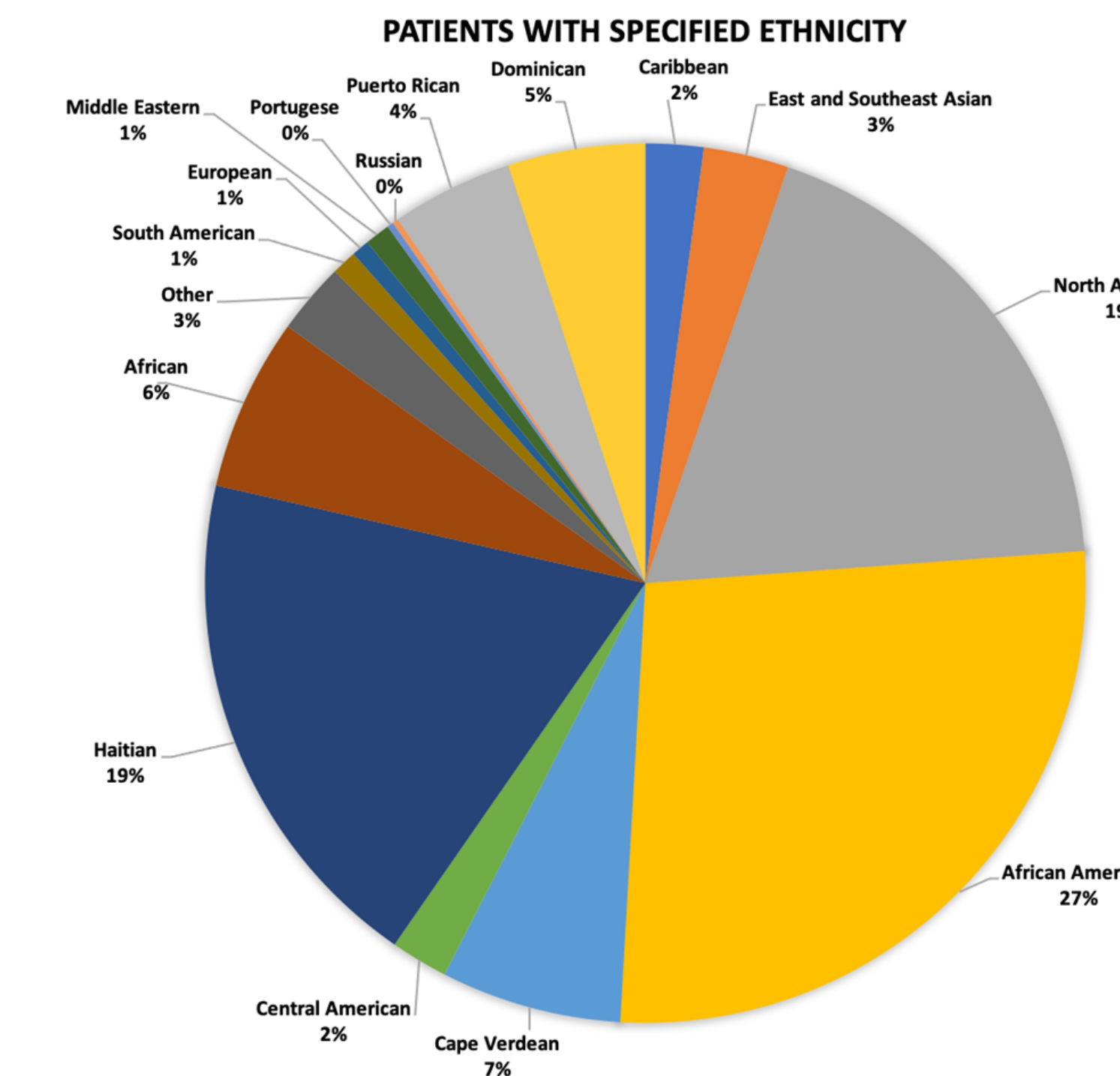


- BMC's patient sample is **significantly lagging** behind national coverage averages, **across ethnicities**
- Differences exist across Ethnicities:** rates of vaccination for Cape Verdean, Haitian, and African patients range from 3-7% lower than the sample average and other ethnicities.
- Males** have **worse** vaccination rates than females & **Younger** patients have the **worst** vaccination rates

Patient Demographics



- median age = 41 vs. City of Boston median age* = 31
- 57% female, 43% male, in line with census*



Addressing Missing Information



- Less than **50%** of the 61,200 records **included ethnicity**
- Using language data, we were able to add assign 4,332 additional patients to an ethnicity
- Vietnamese population is notably small, compared to census data & considering it is a top language translation request
- to ensure our analyses were practical and actionable for BMC, we focused on the 7 largest ethnic groups

Selected Recommendations



- Explore Data Further & Strengthen Data Management Processes



- Identify & Avoid 'Missed Opportunities' from scheduling future vaccinations



- Conduct provider & patient survey to better understand procedure perceptions

Acknowledgement & Thanks



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