Bias Detection Report

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Analysis Summary

This report analyzes the distribution bias of the 'patient_race' feature in the MIMIC-IV dataset. The following methods were used to assess the bias:

1. **Chi-Square Test**: A significant deviation from the expected uniform distribution was observed, suggesting distribution bias.

2. **Kolmogorov-Smirnov Test**: A high K-S statistic and low p-value indicate significant deviation from a uniform distribution.

3. **Jensen-Shannon Divergence**: The divergence value of 0.3305 suggests a moderate bias.

Bias Type

- **Type**: Distribution

- **Relevant Feature**: patient_race

- **Bias Level**: Significant Bias (Level 4)

Visualizations

The following visualizations illustrate the distribution of the 'patient_race' feature:

Conclusion

Based on the analysis, the 'patient_race' feature exhibits significant distribution bias. It is recommended to consider this bias in any subsequent analysis or decision-making processes involving this feature.