

Objectives

- Maintenance therapy is important for preventing exacerbation of asthma.
- We aimed to describe the utilization of maintenance therapy, asthma exacerbation and disparities associated with insurance status in the United States among patients with mild asthma.

Methods

- Data Source**
- Geographically diverse, large US hospital-based administrative Premier Healthcare Database (PHD) + linked administrative claims
- Study Population & Design**
- Retrospective observational study
  - Period: Oct 1, 2021 – Sep 30, 2022
  - Inclusion criteria:  
Patients aged ≥ 18 years with mild intermittent or mild persistent asthma, a short-acting beta<sub>2</sub>-agonist (SABA) fill, a history of asthma exacerbation, and Medicaid, Medicare, or commercial insurance.
  - Exclusion criteria:  
Patients with major respiratory diagnoses of malignancy, or pregnancy, or without continuous medical and pharmacy enrollment
- Definitions**
- Asthma maintenance medications included:
    - ✓ Inhaled corticosteroid (ICS)
    - ✓ Long-acting beta<sub>2</sub>-agonist (LABA)
    - ✓ Long-acting muscarinic antagonist (LAMA)
    - ✓ Leukotriene receptor antagonist (LTRA)
    - ✓ Xanthines
  - Asthma maintenance medications were categorized as:
    - ✓ Monotherapy: ICS, LABA, or LAMA, taken separately
    - ✓ Dual therapy: ICS + LABA
    - ✓ Triple therapy: ICS + LABA + LAMA
  - Asthma exacerbation episode was defined as:

An inpatient admission with a primary diagnosis of asthma, or

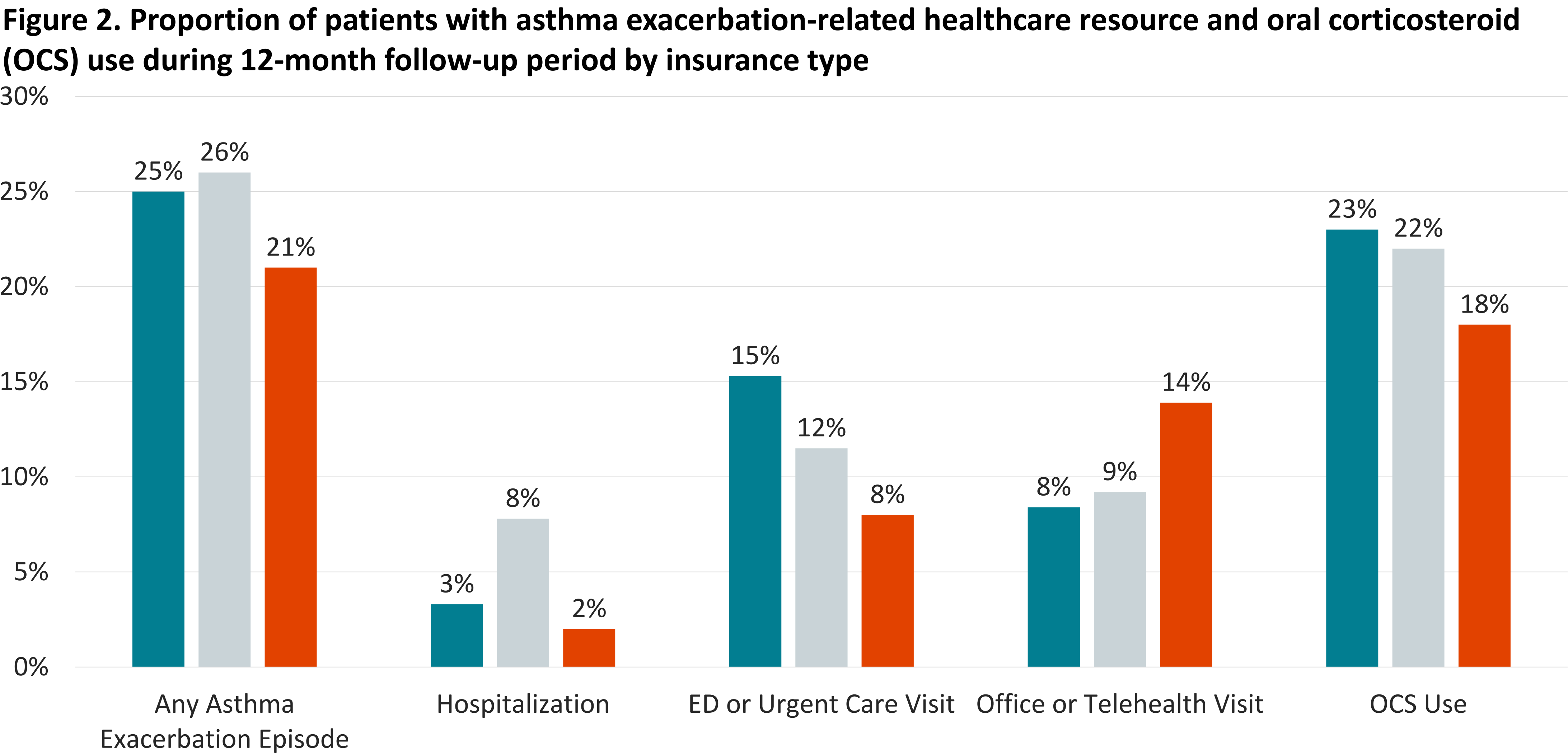
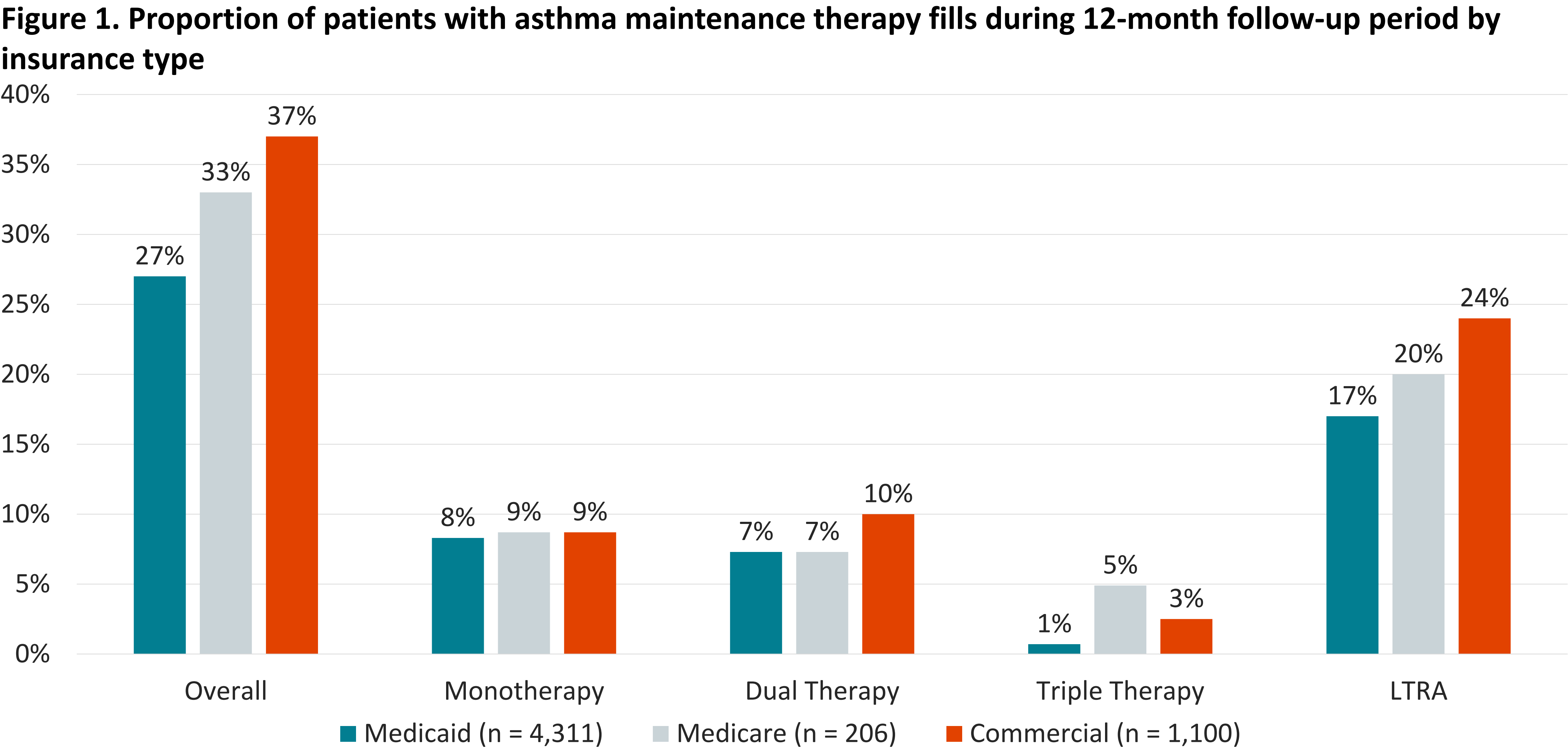
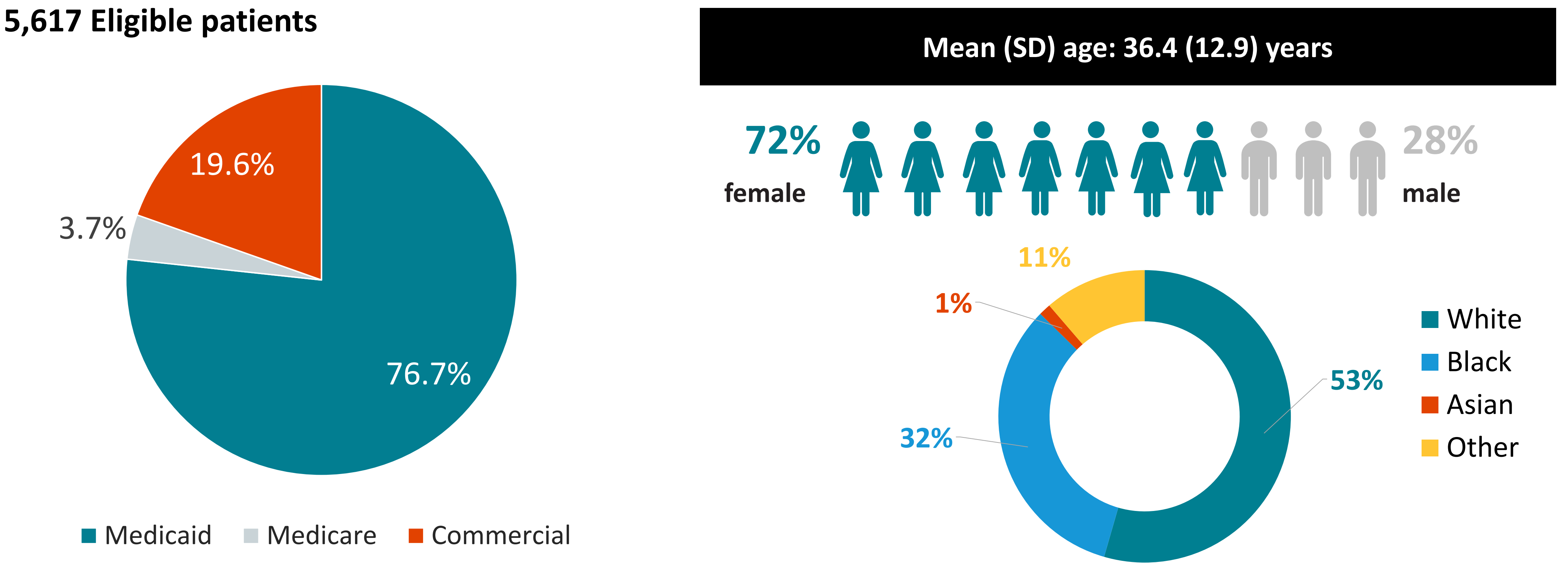
An emergency department (ED) visit with a primary or secondary diagnosis of asthma and filled systemic corticosteroids ± 7-day from the date of visit, or

An office outpatient or telehealth visit with a primary or secondary diagnosis of asthma and filled systemic corticosteroids ± 7-day from the date of visit

**Statistics**

Two sample t-test for comparison of means and SD; two-way Chi-square test for comparison of proportions (statistical significance level set at p≤0.05)

Results



- Majority of patients with mild intermittent or mild persistent asthma and included in the study had Medicaid insurance (77%).
- Medicaid patients were younger (mean age 35 vs. 39 years) and more likely to be Black (34% vs. 22%) than commercial patients (both p<0.01).
- Medicaid patients were significantly less likely to fill maintenance medications compared to commercial (27 % vs. 37%, p<0.01) patients (Figure 1).
- Medicaid patients were significantly less likely to fill dual therapy (7% vs. 10%), triple therapy (0.7% vs. 2.5%), and LTRA (17% vs. 24%) than commercial patients (all p<0.01, Figure 1).
- Medicaid patients were more likely to be hospitalized (3.3% vs. 1.6%), visit an ED or urgent care (15% vs. 8%), and fill an OCS prescription (23% vs. 18%) for an exacerbation than commercial patients (all p<0.01, Figure 2).

Conclusion

- Mild asthma patients with Medicaid were less likely to have access to maintenance medications than those with commercial insurance.
- Mild asthma patients were more likely to have inpatient or ED outpatient visits due to asthma exacerbation than those with commercial insurance.
- Further studies are needed to understand the cause and reduce disparities in access to care among patients living with mild asthma.

References

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