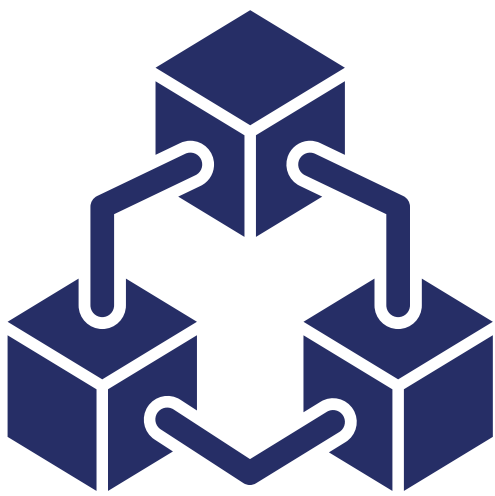


BACKGROUND



- Real-world data (**RWD**) may improve medication safety studies in the pediatric population
- Sentinel System maintains the distributed database (**SDD**) at Data Partners which provides access to high-quality RWD as well as scientific and technical expertise.
- SDD primarily contains administrative claims data; ~1.1 billion person-years, including more than 300 million from Medicaid

OBJECTIVE



Describe demographics, enrollment, and health characteristics among pediatric members in the SDD

METHODS

- Population:** SDD members aged **0 through 21 years** during their first year in each age group (first-year point prevalence) from 2000-2023
 - Neonates & Infants:** 0 – 28 days & 29 days – 23 months;
 - Younger & Older Children:** 2 – 5 & 6 – 11 years;
 - Early & Late Adolescents:** 12 – 17 & 18 – 21 years
- Required ≥1 day of both medical and prescription drug coverage
- Programmed using *Cohort Identification and Descriptive Analysis module*, version 12.1.2
- Outcomes:** Demographics, enrollment, health conditions, healthcare utilization intensity, prescription medication use
- Statistical Analysis:** descriptive statistics (mean/standard deviation or count/percentage)
 - No formal statistical comparisons since analysis was descriptive

RESULTS

- Total volume of pediatric enrollees in the SDD from 2000-2023 ranged from about 16 to about 46 million, depending on age group
- Minimal before 2006; highest in 2014-2019
- Composition of pediatric members by age group relatively constant over time (~20:40:40% neonates/infants : children : adolescents)
- Late adolescents have least; older children have most continuous enrollment (median [IQR] 432 [214 – 1,004] versus 708 [320 – 1,455] days)

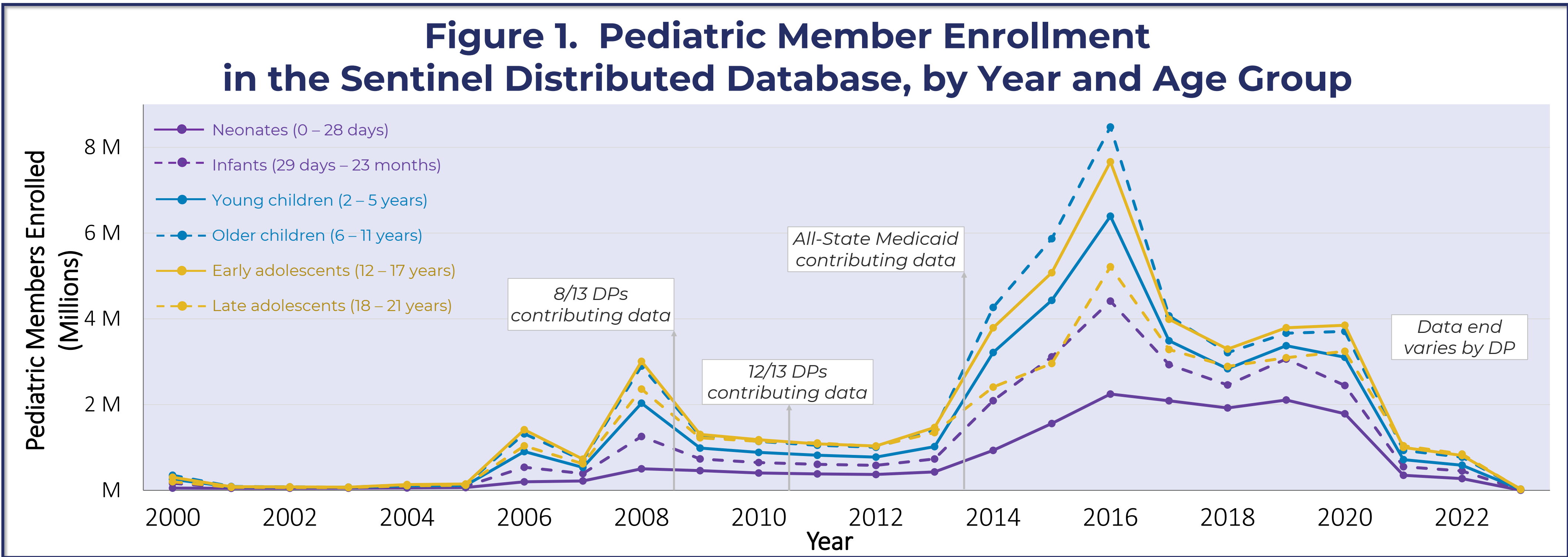
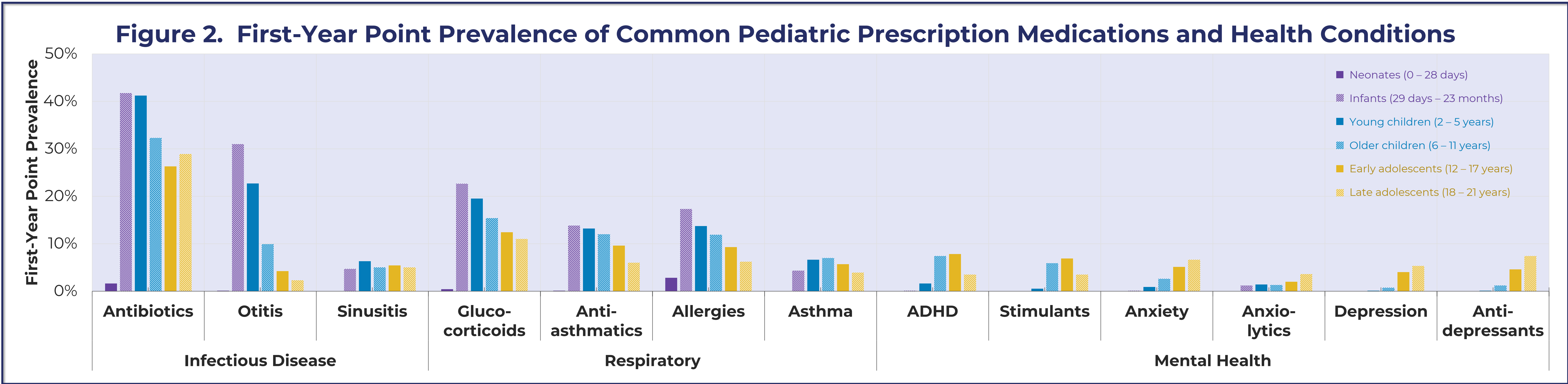


Table 1. Demographics and Healthcare Utilization Among Pediatric Members in the Sentinel Distributed Database

	Neonates	Infants	Young children	Older children	Early adolescents	Late adolescents
Ever enrolled, N (100%)	16,569,023	27,569,755	36,832,277	46,661,705	45,354,705	35,499,458
Known Race, %	35.6	35.3	36.3	35.7	34.2	30.0
Non-White Race, % of Known	41.3	41.4	41.3	41.2	41.1	40.7
Female, %	48.8	48.8	48.8	48.8	49.0	51.2
Mean (SD) annual number of:						
Ambulatory encounters	2.3 (1.7)	7.6 (8.0)	5.3 (10.7)	4.9 (10.1)	5.1 (10.0)	4.2 (8.5)
Dispensed prescriptions	0.1 (0.4)	3.4 (7.4)	2.9 (6.0)	3.2 (7.2)	3.7 (8.5)	4.1 (8.6)
Dispensed drug classes	0.1 (0.4)	2.0 (2.5)	1.7 (2.3)	1.5 (2.2)	1.6 (2.4)	1.8 (2.7)

- Healthcare utilization peaks in infancy, led by ambulatory office visits
- Most common of assessed health conditions was allergies (11.9-17.3% of infants and children; 6.2-9.3% of adolescents)
- Mental health conditions outpace respiratory and infectious disease conditions during adolescent years
- Prescription medication use parallels health conditions



CONCLUSION

- This characterization of pediatric members in the SDD shows consistency with other national estimates, enhancing the Sentinel System’s utility in future pediatric medical product safety assessments.

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