

BACKGROUND



- Real-world data (RWD) may improve medication safety studies in the pediatric population
- Sentinel Initiative maintains a distributed database (SDD) at Data Partners which provides access to high-quality RWD

as well as scientific and technical expertise.

- SDD primarily administrative claims data; ~800 million person-years

OBJECTIVE



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

METHODS

- Population:** SDD members aged **29 days through 21 years** during their first year in each age group (first-year point prevalence) from 2000-2020
 - Infants:** 29 days – 23 months;
 - Children:** 2 – 11 years;
 - Adolescents:** 12 – 21 years
- Required ≥ 1 day of both medical and prescription drug coverage
- Programmed using *Cohort Identification and Descriptive Analysis module*, version 10.3.1
- 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

- Volume of pediatric enrollees in the SDD from 2000-2020 ranged from about 10- to about 38 million, depending on age group
- Minimal enrollment before 2006; highest in 2008 and fairly stable from 2013-2020
- Composition of pediatric members by age group relatively constant over time (~14% infants, ~42% children, ~44% adolescents)
- Pediatric members continuously enrolled for median of 16.9 (IQR 7.5 – 35.9) months

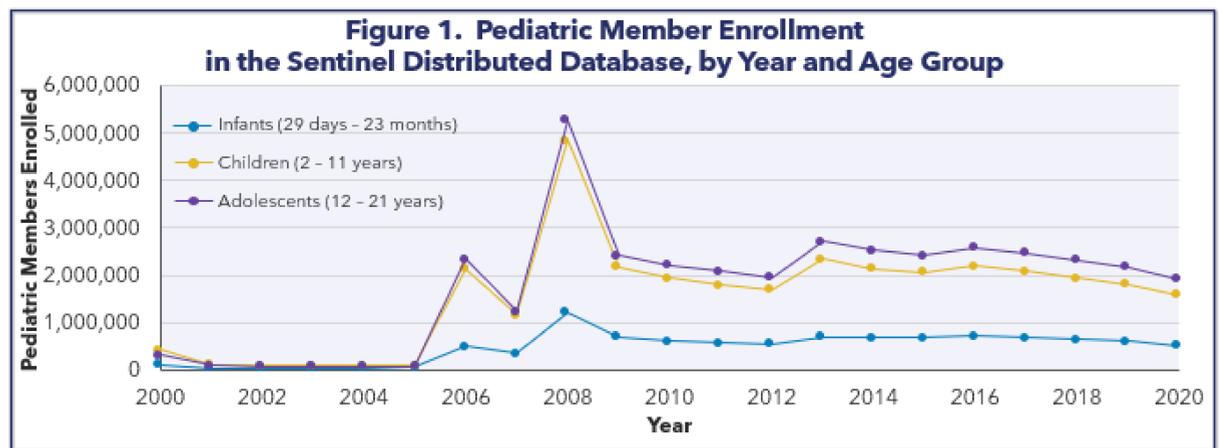
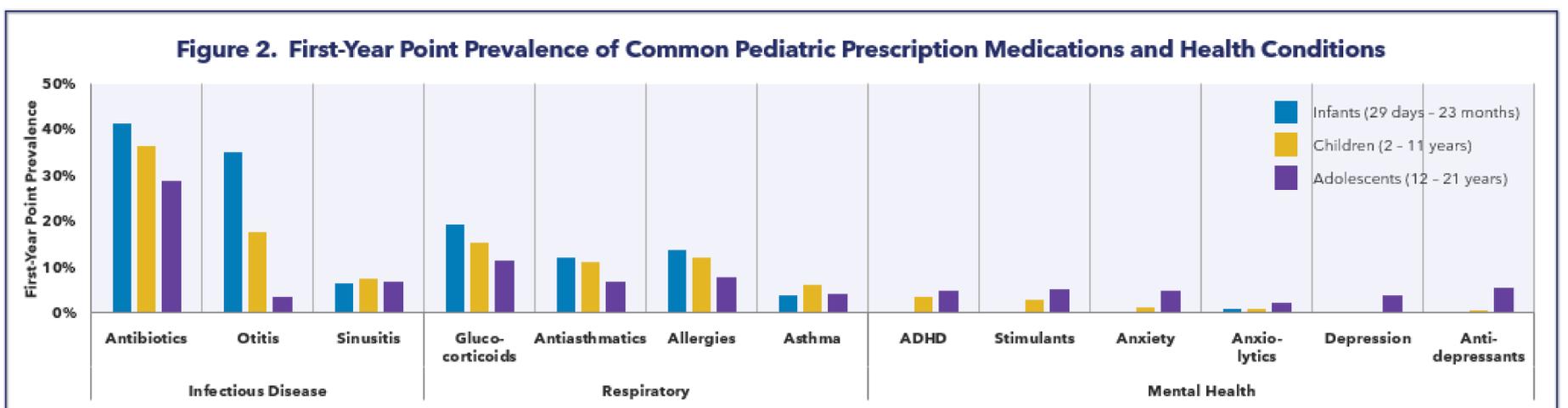


Table 1. Demographics and Healthcare Utilization Among Pediatric Members in the Sentinel Distributed Database

Ever enrolled, N (%)	10,273,860	33,247,274	37,925,029
Known Race, N (%)	881,027 (8.5)	2,709,211 (8.1)	3,049,895 (8.0)
Non-White Race, N (% of Known)	276,518 (31.9)	778,959 (28.7)	807,091 (26.5)
Female, N (%)	5,001,985 (48.7)	16,247,762 (48.9)	18,640,296 (49.2)
Mean (SD) annual number of:			
Ambulatory encounters	7.6 (7.1)	3.7-4.4 (7.2-7.5)	3.5-4.2 (6.8-7.4)
Dispensed prescriptions	2.9 (8.7)	2.4 (4.5-5.2)	3.0-3.9 (6.5-7.5)
Dispensed drug classes	1.6 (2.0)	1.2-1.4 (1.8-1.9)	1.4-1.7 (2.1-2.5)

- Healthcare utilization peaks in infancy, led by ambulatory office visits
- Most common of assessed health conditions was allergies (11.5-13.8% of infants and children; 6.4-9.1% of adolescents)
- Mental health conditions outpace respiratory and infectious disease conditions during adolescent years
- Prescription medication use parallels health conditions

Figure 2. First-Year Point Prevalence of Common Pediatric Prescription Medications and Health Conditions



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