

## OUTPATIENT ANTIBIOTIC PRESCRIPTIONS — United States, 2016

Healthcare providers prescribed **270.2 million** antibiotic prescriptions—equivalent to **836 antibiotic prescriptions per 1000 persons**.

### Data Sources:

Systemic oral antibiotics were extracted from the IQVIA Xponent database. IQVIA captured an estimated 90% of outpatient prescriptions for any medication nationally, reconciled them to wholesale deliveries, and projected to 100% coverage. These data represent all outpatient antibiotic prescriptions from community pharmacies from all payers, but exclude federal facilities. Provider specialties are taken from the American Medical Association (AMA) self-designated practice specialties and categorized into one of 17 groups. Population data were obtained from the U.S. Census bridging files.

### References

Hicks, L.A., et al., US Outpatient Antibiotic Prescribing Variation According to Geography, Patient Population, and Provider Specialty in 2011. *Clin Infect Dis*, 2015. **60**(9): p. 1308-16.

Table 1. Oral antibiotic prescriptions by age, sex and region—United States, 2016

Characteristics	Number Of Antibiotic Prescriptions (Millions)	Antibiotic Prescriptions Per 1,000 Persons, Rate
<b>Age group<sup>a</sup></b>		
<20 years	64.9	790
≥20 years	205.4	852
<b>Sex<sup>a</sup></b>		
Female	164.6	1,003
Male	105.5	663
<b>Region<sup>b</sup></b>		
Northeast	48.8	868
Midwest	60.2	887
South	114.5	937
West	46.5	607

<sup>a</sup>Totals may not add to all oral prescriptions (270.2 million) due to missing data.

<sup>b</sup>Totals may not add to all oral prescriptions (270.2 million) due to rounding.

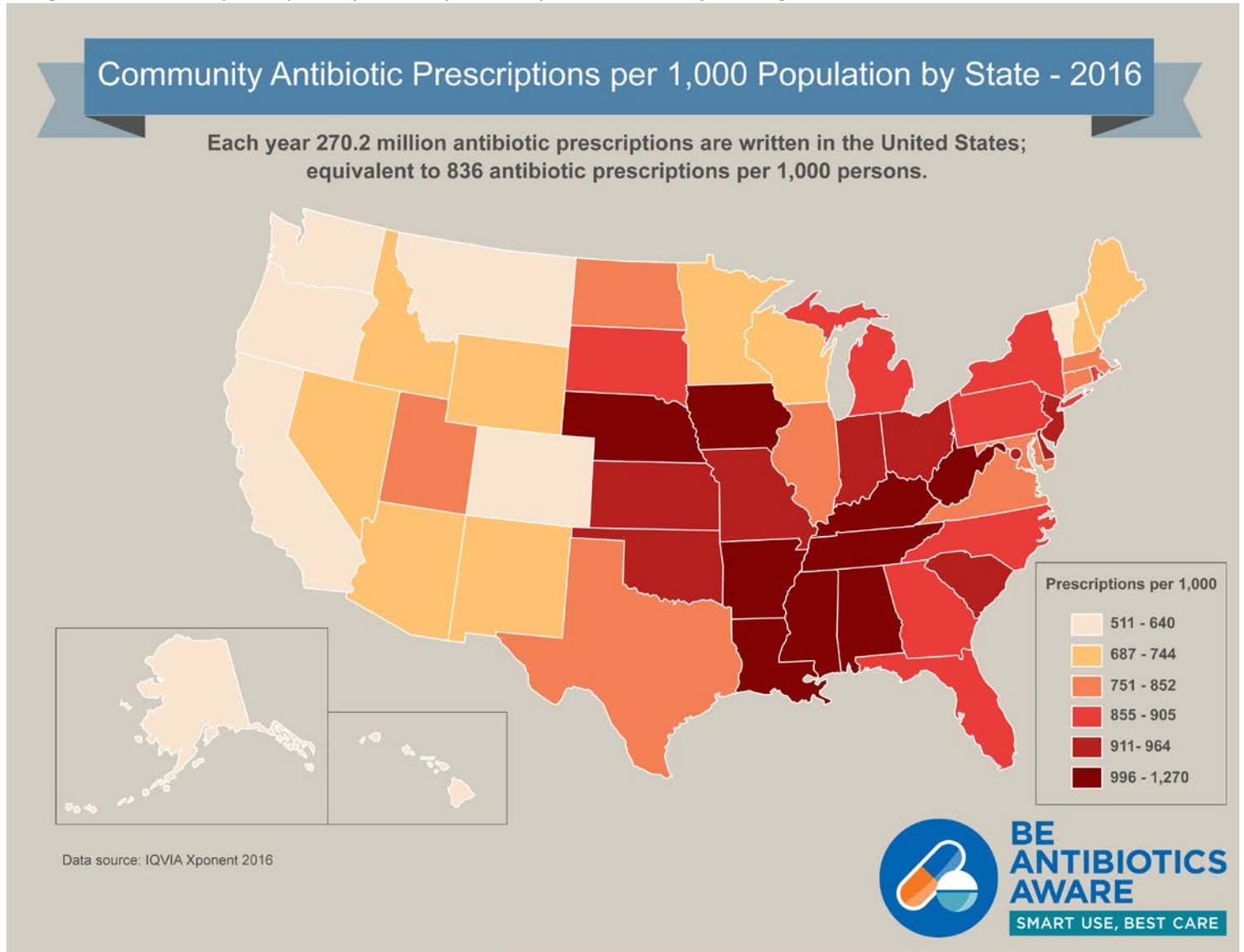
Table 2. Top oral antibiotic classes and agents prescribed—United States, 2016

Characteristics	Number Of Antibiotic Prescriptions (Millions)	Antibiotic Prescriptions Per 1,000 Persons, Rate
<b>Antibiotic class</b>		
Penicillins	63.2	196
Macrolides	47.7	148
Cephalosporins	36.9	114
Fluoroquinolones	29.7	92
Beta-lactams, increased activity	26.4	82
<b>Antibiotic agent</b>		
Amoxicillin	56.7	176
Azithromycin	44.9	139
Amoxicillin/clavulanic acid	26.4	82
Cephalexin	21.8	68
Sulfamethoxazole/trimethoprim	20	62

Table 3. Oral antibiotic prescribing by provider specialty — United States, 2016

Provider Specialty	Number Of Antibiotic Prescriptions (Millions)	Antibiotic Prescriptions Per Provider, Rate
<b>Primary Care Physicians</b>	106.3	448
<b>Physician Assistants and Nurse Practitioners</b>	68.4	395
<b>Surgical Specialties</b>	19.3	217
<b>Dentistry</b>	25.7	210
<b>Emergency Medicine</b>	14.7	454
<b>Dermatology</b>	6.9	608
<b>Obstetrics/Gynecology</b>	6.0	160
<b>Other</b>	22.9	110
<b>All Providers</b>	270.2	296

**Figure 1.** Antibiotic prescriptions per 1000 persons by state (sextiles) for all ages — United States, 2016.



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