In 2008-2011, the average annual number of pediatric (<18 years) and adult (≥18 years) office visits leading to macrolide prescriptions was 9.0 million and 5.4 million, respectively.

Conditions for which macrolides are first-line recommended treatment are represented only 7% of pediatric and 5% of adult macrolide prescribing.

After controlling for age, diagnosis, and other patient characteristics, family practitioners had higher odds of selecting macrolides for children (adjusted odds ratio [AOR], 1.42; 95% confidence interval [CI] 1.05–1.94) than pediatricians (Table 4). No specialty-level differences were identified for adults.

The most common diagnoses among children and adults associated with visits resulting in a macrolide prescription were sinusitis, bronchitis, viral URI, and pharyngitis (Figure 1). Among children, AOM was also a common diagnosis.

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of CDC or its partners.

REFERENCES
1. Outpatient Macrolide Antibiotic Prescribing in the United States, 2008-2011. Guillermo V. Sanchez, PA-C, MPH1, Daniel J. Shapiro, MD2, Adam L. Hersh, MD, PhD3, Lauri A. Hicks, DO4, Katherine E. Fleming-Dutra, MD4
2. National Center for Emerging and Zoonotic Infectious Diseases, CDC, Atlanta, GA
3. Boston Children’s Hospital, Boston, MA
4. Massachusetts Infectious Diseases Society, Boston, MA

CONTACT INFO
Boston Children’s Hospital
300 Longwood Avenue
Boston, MA 02115
Email: Dutra.D.D.M.Dutta@childrens.harvard.edu
Phone: (617) 355-4700
FAX: (617) 355-4704

LIMITATIONS
1. NAMCS data rely on accurate clinician diagnoses and ICD-9 codes and do not directly link medications and diagnoses.
2. Multiple visits for the same illness episode in NAMCS may be captured as separate clinical encounters.
3. Time delays regarding the release of NAMCS data limits our ability to use more recent data.
4. No drug allergy information is included in NAMCS and was not accounted for in our analyses.

CONCLUSIONS
1. Macrolides are frequently prescribed for conditions for which they are not recommended. Overview of macrolides is an important target for antibiotic stewardship initiatives.

Figure 1. Top diagnoses for adult and pediatric macrolide prescribing, as a percentage of total macrolide prescribing, 2008-2011

AOM: acute otitis media
BPH: benign prostatic hypertrophy
COPD: chronic obstructive pulmonary disease
CVAE: cerebrovascular accident
DVT: deep vein thrombosis
HA: heart attack
HFA: hypertension
I: influenza
IV: intravenous
M: meningitis
N: pneumonia
P: pneumonia
PP: pneumonia and pneumococcal vaccine
PTE: pulmonary thromboembolism
PSA: prostatitis
PVD: peripheral vascular disease
SAP: septic arthritis
TB: tuberculosis
TIA: transient ischemic attack
VTE: venous thromboembolism
URI: upper respiratory infection
USPSTF: U.S. Preventive Services Task Force
WNV: West Nile virus
ZDV: zidovudine