

Variability in antibiotic prescribing: targets for improving antibiotic use

PACCARB Public Meeting

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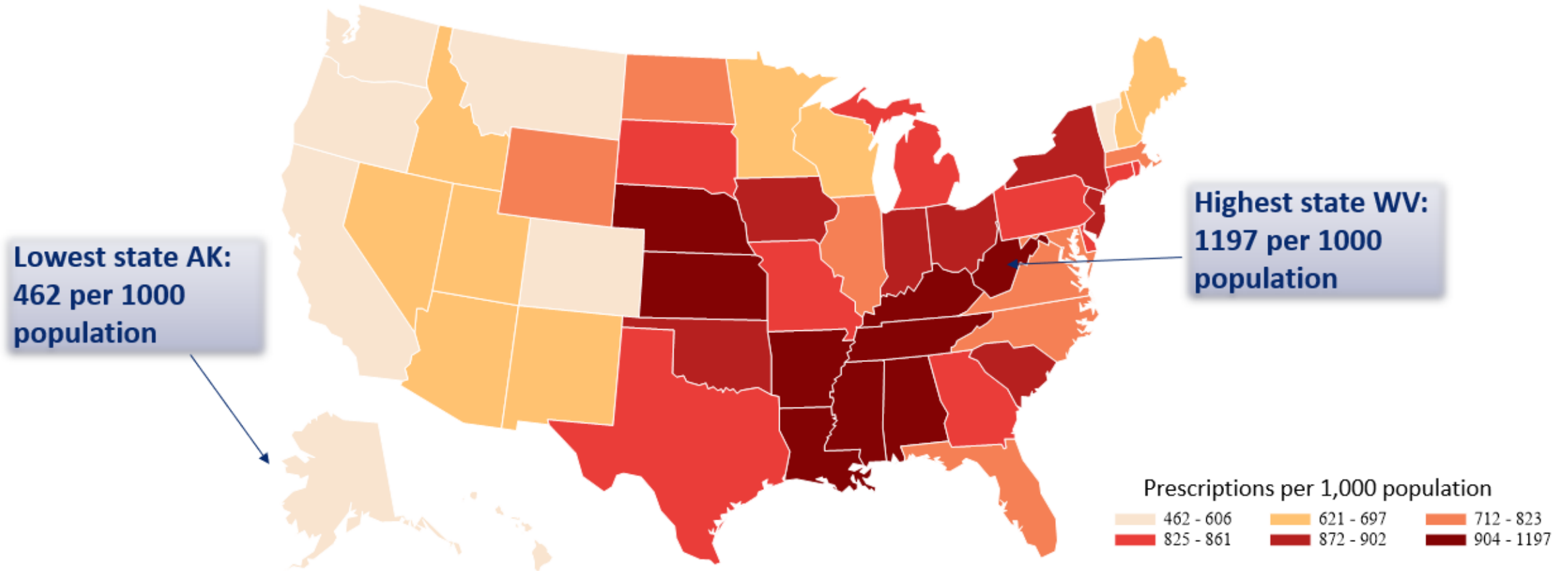
CAPT Lauri Hicks, DO (lhicks@cdc.gov)

Director, Office of Antibiotic Stewardship, Division of Healthcare
Quality Promotion

Understanding variability and health disparities in outpatient antibiotic prescribing

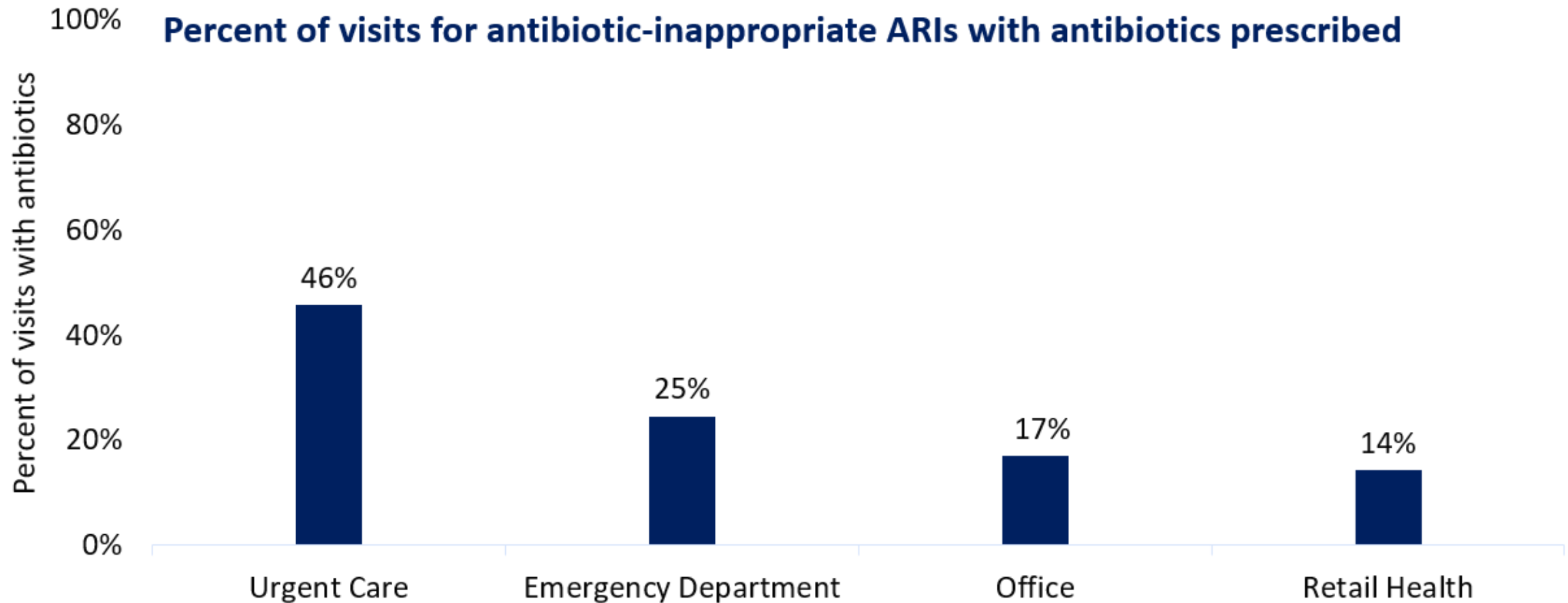
- Access to care is a prerequisite to receiving an antibiotic.
- In the case of antibiotic prescribing, less may be more.
- Prescribing an antibiotic is often the default even when it's not needed to meet patient and parent expectations.
- Clinicians have the power of the prescription.
- Patient and parent characteristics and antibiotic seeking behavior are important considerations, because these influence clinician perceptions.

Antibiotic prescribing differs geographically in the United States.



Outpatient antibiotic prescriptions dispensed per 1,000 population, IQVIA 2018

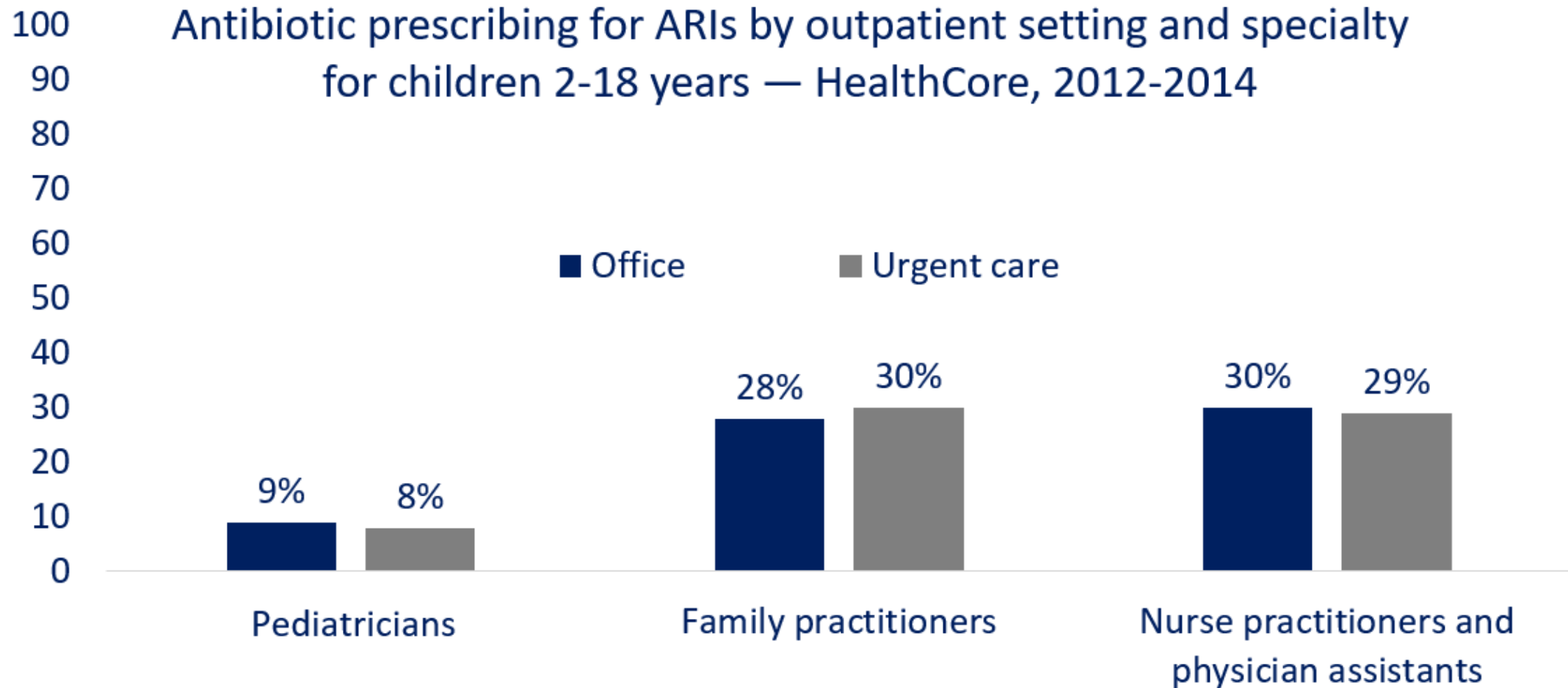
Antibiotic prescribing for antibiotic-inappropriate acute respiratory infections (ARIs) is common in outpatient settings, especially urgent care.



*Antibiotic-inappropriate ARIs include: Viral URI, bronchitis, bronchiolitis; influenza; nonsuppurative otitis media; viral pneumonia; asthma/allergy. Visits with additional diagnoses of concomitant bacterial infections (e.g. pneumonia, urinary tract infections, acute otitis media, sinusitis) were excluded.

Palms D, Hicks L, Hersh AL, et al. *JAMA Int Med*. E-Publish Ahead of print July 16, 2018.

Clinician-type drives variability in prescribing; pediatricians perform better.



The data point to three target areas to reduce inappropriate antibiotic use.



**Primary care
clinicians,
including nurse
practitioners and
physician
assistants**



Urgent care



**Respiratory
infections**

Improving prescribing requires changing clinician behavior.

- Patient-only interventions don't improve prescribing.
- Education alone is not enough.
- Clinician-focused interventions are effective.
- Partner engagement is critical:
 - Payers
 - Health departments
 - Health systems
 - Companies
 - Professional organizations



What are the key drivers of antibiotic prescribing variability?

- What we know
 - There is variability in volume and appropriateness of prescribing.
 - Prescribing quality also varies by healthcare setting and clinician-type.
 - Interventions that target clinician behavior are effective.
 - Addressing disparities in prescribing may require ensuring continuity and access to clinicians who prescribe appropriately.
- What this panel will explore
 - Considerations for assessing racial and health disparities related to access to and quality of prescribing
 - Studies on racial and socioeconomic disparities and prescribing

U.S. ANTIBIOTIC AWARENESS WEEK

November 18-24, 2021

www.cdc.gov/antibiotic-use



For more information, contact CDC
1-800-CDC-INFO (232-4636)
TTY: 1-888-232-6348 www.cdc.gov
lhicks@cdc.gov

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

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**An antibiotic will not
make you feel better
if you have a virus.**

