



**Department
of Health**

Using Medicaid Data to Map Avoidable Prescribing Practices

February 10, 2019

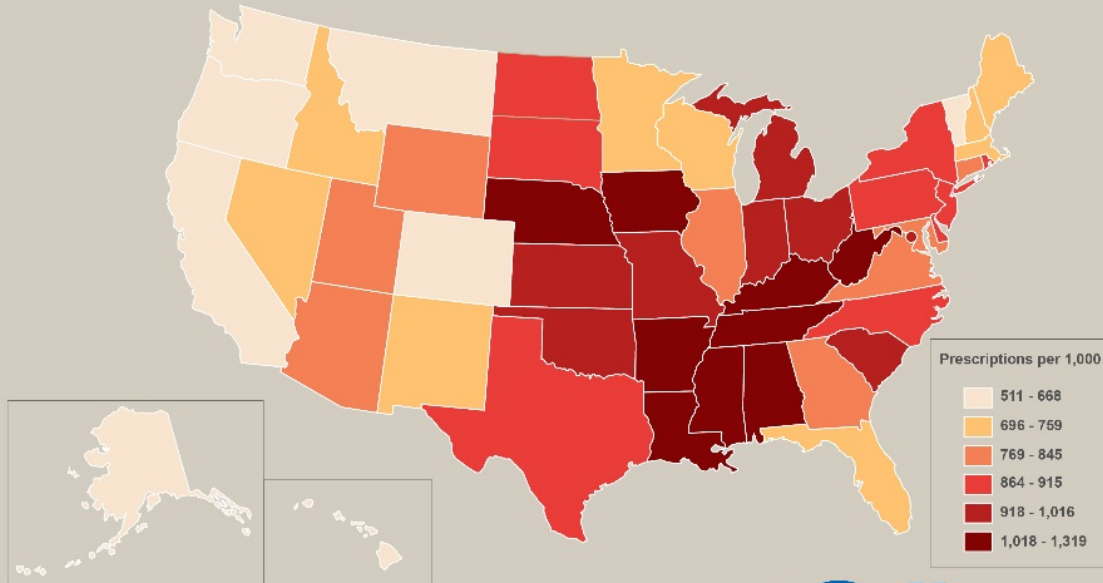
Emily Lutterloh, MD, MPH

Director, Bureau of Healthcare Associated Infections

New York State Department of Health

Community Antibiotic Prescriptions per 1,000 Population by State - 2015

Each year 269.4 million antibiotic prescriptions are written in the United States;
enough to give 4 out of every 5 people one prescription.



Data source: QuintilesIMS Xponent, 2015



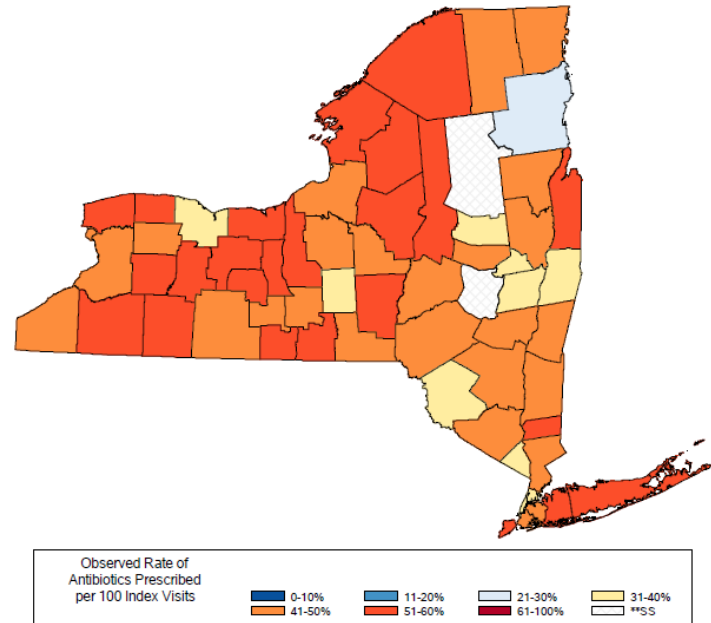
Analysis

- Collaboration with NYSDOH Office of Quality and Patient Safety
 - Access to and experience with Medicaid data
- Identify initial visits to outpatient providers for acute upper respiratory infections (URIs)
- Use pharmacy claims data to identify visits when an antibiotic was prescribed and subsequently filled
- Determine regional rates of prescribing for URIs to better target interventions

Analysis

- Mapped potentially avoidable prescribing for URIs
- Created county-level maps based on provider practice location

Potentially Avoidable Outpatient Acute Upper Respiratory Infection Antibiotic Prescribing, Adjusted* Rates by County
New York State Medicaid Enrollees, Adults 18 to 64 Years Old, 2013



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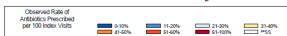
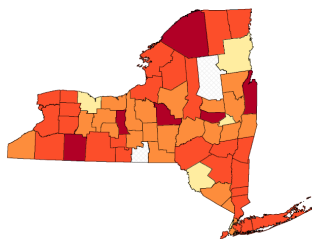
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**Colors Indicate Ranges of Equal Sizes

Note: Data represents only filled prescriptions

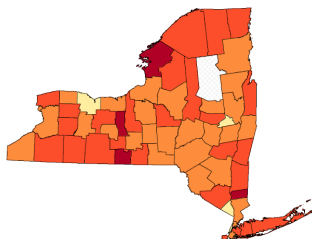
Adult Outpatient Antibiotics for Acute URI, 2010 - 2016

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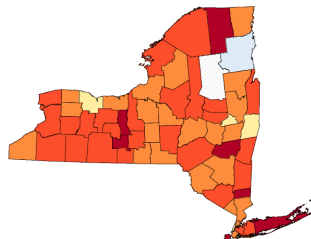
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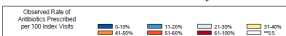
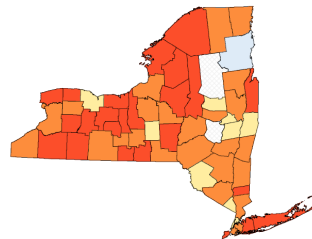
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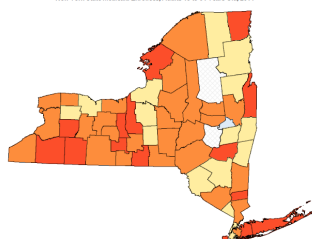
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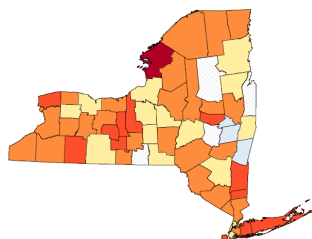
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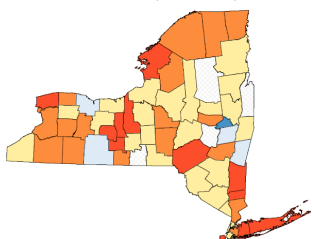
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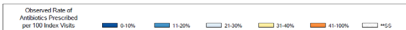
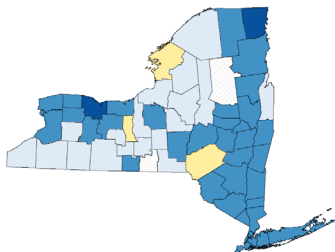
Observed Rate of Antibiotics Prescribed per 100 Index Visits



Pediatric Outpatient Antibiotics for Acute URI, 2010 - 2016

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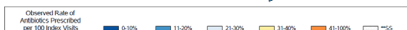
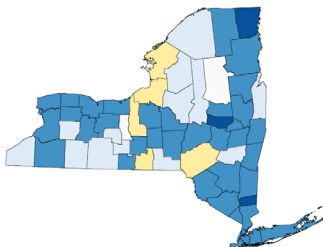
New York State Medicaid Enrollees, Children 3 Months to 17 Years Old, 2010



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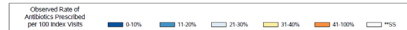
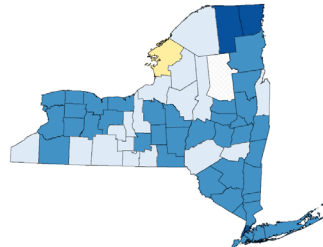
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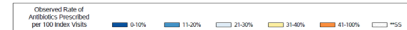
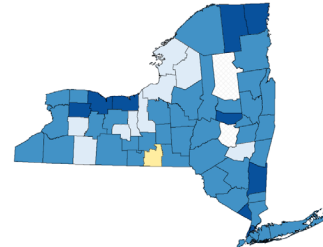
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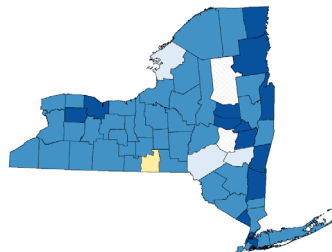
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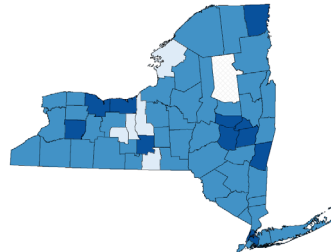
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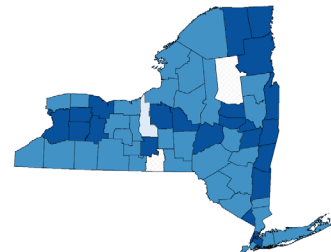
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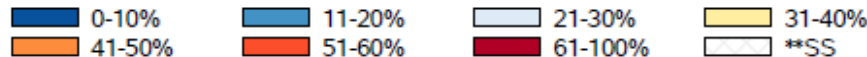
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Observed Rate of Antibiotics Prescribed per 100 Index Visits



Outreach: Letter to Prescribers



Department
of Health

ANDREW M. CUOMO
Governor

HOWARD A. ZUCKER, M.D., J.D.
Commissioner

SALLY DRESLIN, M.S., R.N.
Executive Deputy Commissioner

July 2015

Dear Provider:

The Centers for Disease Control and Prevention (CDC) and the New York State Department of Health (Department) are working together to curb the overprescribing of antimicrobial agents.

Recently, the Department performed an analysis of statewide adult outpatient Medicaid claims data from 2013. Based upon this analysis, **your practice has been identified as being located in an area of New York State that has an unexpectedly high rate of potentially avoidable antibiotic prescribing.** Please see the enclosed map.

- Sent “Dear Provider” letters and map to providers in 11 high-prescribing counties likely to see patients for URIs
- Followed up with educational materials



Interventions

ADULT AND PEDIATRIC ANTIBIOTIC PRESCRIBING GUIDELINES

Adult Outpatient Treatment Recommendations 2017: Summary of Guidelines¹

Acute rhinosinusitis²⁻⁴

90-98% of cases are viral
Antibiotics may NOT help even if cause is bacterial

Diagnosis	Management
<p>Symptoms of acute bacterial rhinosinusitis are:</p> <ul style="list-style-type: none"> • Severe (>3-4 days), fever >39°C (102.2°F) and purulent nasal discharge or facial pain; • Persistent without improvement, such as nasal discharge or daytime cough for at least 10 days beyond the onset of viral upper respiratory symptoms; or • "Double worsening", such as worsening or new onset fever, daytime cough, headache or nasal discharge within 10 days after initial improvement of a viral URI <p>Sinus radiographs are NOT routinely recommended.</p>	<p>If bacterial, watchful waiting encouraged for uncomplicated infections with reliable follow-up.</p> <p>Evidence-based supportive care:</p> <ul style="list-style-type: none"> • Saline nasal irrigation • Intranasal glucocorticoids • Oral decongestants when there is Eustachian tube dysfunction • OTC analgesics and antipyretics <p>Macrolides (such as azithromycin) are NOT recommended due to high levels of <i>S. pneumoniae</i> antibiotic resistance (~40%).</p> <p>If mild/moderate and no risk factors for resistance: >65 yo, antibiotics within 30 days, recent hosp. >10% penicillin non-susceptible <i>S. pneumoniae</i>, immunocompromised):</p> <ul style="list-style-type: none"> • amoxicillin/clavulanate 2 g/125 mg PO 2x/day x 7-10 days. <p>Penicillin-allergic patients:</p> <ul style="list-style-type: none"> • doxycycline 100 mg PO 2x/day or 200 mg PO 1x/day x5-10 days <p>See references for additional treatment options, including re-treatment after initial treatment failure, and other important information.</p>

Preserve **Anti**biotics Protect the Future

Antibiotic Resistance Task Force

ពាក្យសម្រេចរបស់គ្រូពេទ្យសម្រាប់ជំងឺឆ្លងឆ្លូវ

ឈ្មោះ: _____
 កាលបរិច្ឆេទ: _____
 ការធ្វើពាក្យសម្រេច: _____
 គ្មានការប្រើប្រាស់
 ទឹកកខ្វក់ប្រេវ៉ាត (ORIS Medix ជាមួយ Effusion, OME)
 ធុក
 ឈឺក្បាល
 ឈាមក្នុងស្បូន
 ផ្សេងៗ

ប្រសិនបើអ្នកប្រើប្រាស់ថ្នាំប្រឆាំងជំងឺឆ្លងឆ្លូវ (Antibiotics) តាមប្រយោជន៍ប្រកបដោយសុវត្ថិភាព ប្រសិនបើអ្នកប្រើប្រាស់ថ្នាំប្រឆាំងជំងឺឆ្លងឆ្លូវ តាមប្រយោជន៍ប្រកបដោយសុវត្ថិភាព ប្រសិនបើអ្នកប្រើប្រាស់ថ្នាំប្រឆាំងជំងឺឆ្លងឆ្លូវ តាមប្រយោជន៍ប្រកបដោយសុវត្ថិភាព ប្រសិនបើអ្នកប្រើប្រាស់ថ្នាំប្រឆាំងជំងឺឆ្លងឆ្លូវ តាមប្រយោជន៍ប្រកបដោយសុវត្ថិភាព

សេចក្តីព្រមានទូទៅ

- ពិសាមិក និងជាតិទឹកស្បែក
- ប្រើប្រាស់ប្រកបដោយសុវត្ថិភាព ប្រសិនបើអ្នកប្រើប្រាស់ថ្នាំប្រឆាំងជំងឺឆ្លងឆ្លូវ តាមប្រយោជន៍ប្រកបដោយសុវត្ថិភាព
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ព្រឹត្តិការណ៍សំខាន់ៗ

- គ្រុធាវិយ
- ឈឺក្បាល
- ឈាមក្នុងស្បូន

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ការពិចារណា

- ប្រសិនបើអ្នកប្រើប្រាស់ថ្នាំប្រឆាំងជំងឺឆ្លងឆ្លូវ តាមប្រយោជន៍ប្រកបដោយសុវត្ថិភាព ប្រសិនបើអ្នកប្រើប្រាស់ថ្នាំប្រឆាំងជំងឺឆ្លងឆ្លូវ តាមប្រយោជន៍ប្រកបដោយសុវត្ថិភាព ប្រសិនបើអ្នកប្រើប្រាស់ថ្នាំប្រឆាំងជំងឺឆ្លងឆ្លូវ តាមប្រយោជន៍ប្រកបដោយសុវត្ថិភាព ប្រសិនបើអ្នកប្រើប្រាស់ថ្នាំប្រឆាំងជំងឺឆ្លងឆ្លូវ តាមប្រយោជន៍ប្រកបដោយសុវត្ថិភាព
- ប្រសិនបើអ្នកប្រើប្រាស់ថ្នាំប្រឆាំងជំងឺឆ្លងឆ្លូវ តាមប្រយោជន៍ប្រកបដោយសុវត្ថិភាព ប្រសិនបើអ្នកប្រើប្រាស់ថ្នាំប្រឆាំងជំងឺឆ្លងឆ្លូវ តាមប្រយោជន៍ប្រកបដោយសុវត្ថិភាព ប្រសិនបើអ្នកប្រើប្រាស់ថ្នាំប្រឆាំងជំងឺឆ្លងឆ្លូវ តាមប្រយោជន៍ប្រកបដោយសុវត្ថិភាព ប្រសិនបើអ្នកប្រើប្រាស់ថ្នាំប្រឆាំងជំងឺឆ្លងឆ្លូវ តាមប្រយោជន៍ប្រកបដោយសុវត្ថិភាព
- ផ្សេងៗ

បានចុះហត្ថលេខា: _____

Your health is important to me.



That's why I'm signing the "Smart Use Guarantee."

Antibiotics don't work for viral infections like the common cold, most coughs, and most sore throats. Taking antibiotics when they don't work can do more harm than good by causing stomach upset, diarrhea, or allergic reactions.

I guarantee I will do my best to prescribe antibiotics only when you need them.

Antibiotics can be life-saving, but bacteria are becoming more resistant. If we're not careful about how we prescribe and use the antibiotics we've relied on for years, they might not work for us in the future. To learn more visit: cdc.gov.

Signature: _____

The Future

- Next Steps
 - Additional years
 - Other conditions, e.g. pharyngitis, otitis media
 - Overall antibiotic prescribing per Medicaid enrollee
 - Assess adherence to guidelines
 - Other insurers
- Impact
 - Target other initiatives
 - Multiple other initiatives ongoing simultaneously
 - Difficult to measure
 - Continue to follow as additional years of data become available

Thank You



AN ANTIBIOTIC IS THE WRONG TOOL TO TREAT A VIRUS.

Make sure you use the right tool for the job.

Antibiotics save lives by treating certain infections caused by bacteria, not viruses like colds or flu. When they're not needed, antibiotics won't help you, and the side effects could still hurt you. Ask your doctor when an antibiotic is the right tool for your illness and when it's not.

To learn more about antibiotic prescribing and use, visit www.cdc.gov/antibiotic-use.

