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### Practicum Sites:

Vanderbilt Health Clinics at Walgreens  
Monroe Carell Jr. Children's Hospital at  
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### Practicum Site Supervisors:

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## Development and Implementation of Outpatient Pediatric Antimicrobial Stewardship Interventions

**Program/project purpose:** The Vanderbilt Pediatric Antimicrobial Stewardship Program (ASP) aims to support providers at Monroe Carell Jr. Children's Hospital at Vanderbilt (VCH) and its affiliated locations in appropriate antimicrobial prescribing (Rx), with an ultimate goal to reduce antimicrobial resistance in the community. Currently, 80-90% of all antibiotic prescriptions are written in the outpatient setting. The focus of my practicum was to assist in developing and implementing interventions designed at reducing antimicrobial Rx at pediatric outpatient clinics.

**Structure, design of program/project:** The team and I worked with 10 VCH affiliated outpatient clinics along with 14 Vanderbilt Health Clinics at Walgreens, targeting practitioners who write antimicrobial Rx for pediatric patients seen at these outpatient clinics (95 nurse practitioners, 9 physician assistants, 81 physicians). We created and implemented educational online modules, in-person didactic lectures, in-person informal teaching opportunities, and online dashboards for monitoring antibiotic use across outpatient settings. Additionally, we created report cards comparing provider-level and clinic-level antibiotic Rx. These are sent out on a quarterly basis to the Vanderbilt Health Clinics at Walgreens. For those clinics that Rx the most antibiotics, in-person consultation occurs.

**Outcomes and evaluation:** The combination of outreach and education activities resulted in a decreased rate of antibiotic Rx in

the Vanderbilt Health Clinics at Walgreens during the intervention period.

Nurse Practitioners working at the Vanderbilt Health Clinics at Walgreens are required to complete the new online educational module developed to refresh their knowledge on up-to-date guideline recommendations.

The online dashboards for monitoring antibiotic use across outpatient settings is available for use by key stakeholders. This dashboard has the capacity to assess antibiotic prescriptions at the provider level, the clinic level, or the larger clinic-type level (i.e. compare antibiotic use in Walgreens to other walk-in clinics or the ED).

**Lessons learned:** One of the limitations of the project is that it lacks rigorous study design and effect measurement. The intervention was successful in identifying targets for future ASP efforts. By significantly decreasing rates of antibiotic Rx in the pediatric outpatient setting, ASP has the potential to reduce antimicrobial resistance in the Nashville community.

