

# Lessons Learned from an Annual Kids' Art Competition to Promote Antimicrobial Stewardship

Tabitha Reefer<sup>1</sup>, Sameh Boktor<sup>2</sup>, Natalie Mueller<sup>3</sup>, Anne Dodds<sup>4</sup>, Mary Leonard<sup>5</sup>, Courtney Yealy<sup>2</sup>, Nkuchia M. M'ikanatha<sup>2</sup>

<sup>1</sup>Pennsylvania Dept. of Health., Pittsburgh, PA, <sup>2</sup>Pennsylvania Dept. of Health., Harrisburg, PA, <sup>3</sup>Cooper Thomas, LLC, Washington, DC, <sup>4</sup>Keystone STARS, York, PA, <sup>5</sup>Univ. of Pennsylvania, Philadelphia, PA

Nkuchia M'ikanatha, DrPH, MPH  
(717) 787-3350 nmikanatha@pa.gov

## Introduction

### Antimicrobial Resistance

- Ability of microbes to resist the effects of drugs
- In the US each year, resistance accounts for:
  - 2,049,422 illnesses
  - 23,000 deaths (1)

### Antimicrobial Stewardship in Pennsylvania

- In collaboration with the CDC Get Smart: Know When Antibiotics Work Program and academic partners, Pennsylvania developed a website to promote antimicrobial stewardship (KnowWhenToSayNo.org)

### Objective

- Evaluate the use of an annual kids' art competition for ages 3-8 to promote appropriate antibiotic use and increase awareness of the website

## Methods

- Competition guidelines direct participants to Pennsylvania Get Smart website (KnowWhenToSayNo.org)
- Various methods were used to promote the competition including:
  - Emails and newsletters directed to childcare facilities
  - Flyers to multiple settings including pediatric clinics, and libraries (Figure 1)
- Review of participant records for the 2013 kids' art competition
- Google Analytic's records on visits to the site were reviewed to assess site visit correlation with kids' competition announcement (Figure 2)

## Results

- 388 entries submitted from 31% (21 of 67) of counties in Pennsylvania.
- 1/3 of entries were mailed from childcare facilities.
- Ages of participants:
  - 24% under four years of age
  - 36% ages five to six
  - 40% ages seven and eight
- Following the announcement of the winners on the website:
  - 81.4% of the 1,839 unique visitors were new
  - Bounces in activity correlated with:
    - Competition announcement in September, October, and November 2013
    - Receiving of prizes to winners from state's Physician General in February 2014

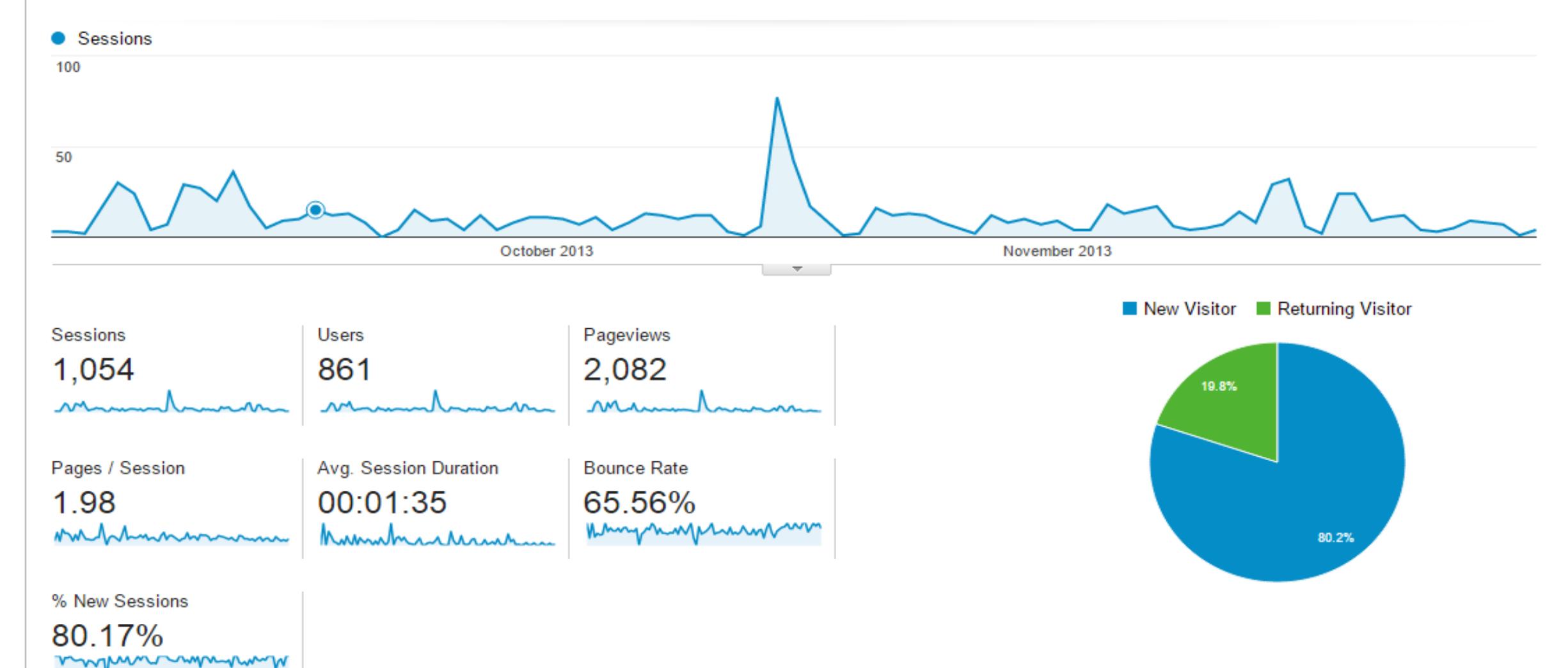


Figure 1: Current year art competition flyer

Conflict of Interest: None of the authors have a conflict of interest.

## Results (cont.)

### September, October, November 2013



### February 2014

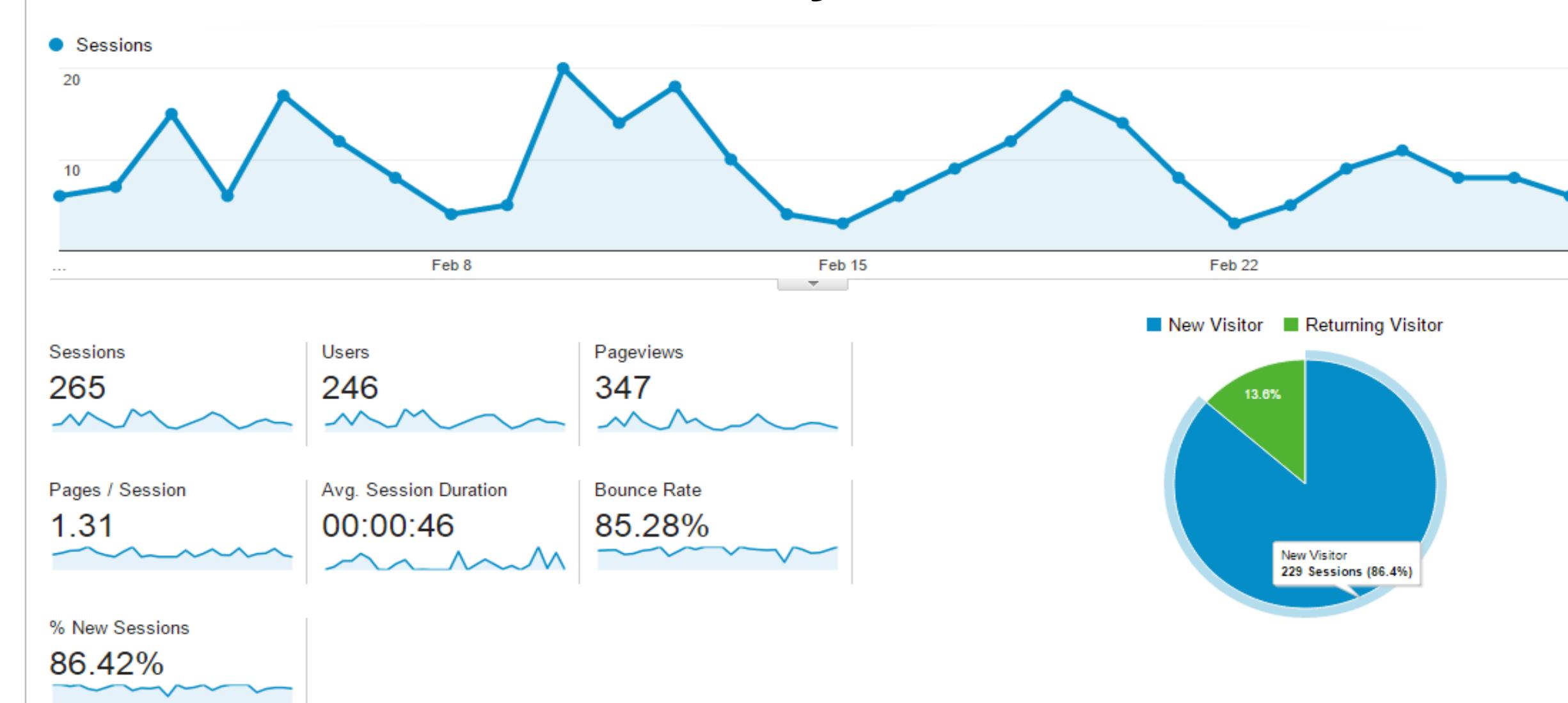


Figure 2: Google Analytics data showed the majority of users were new to the site.

## Conclusion

- Competition engaged children, parents, and childcare providers
- Increases in website traffic correlated with drawing competitions announcements
- Given the size of Pennsylvania, the evaluation process and ability to disseminate the information to all residents, including low income populations, was a limitation of this study.
- Suggesting that this approach could be used to increase awareness of online public health interventions
- More research is needed on ways to sustain interest in online resources over time.

### References:

- White House. National Action Plan for Combating Antibiotic-Resistant Bacteria. Accessed August 8, 2015 at: [https://www.whitehouse.gov/sites/default/files/docs/national\\_action\\_plan\\_for\\_combating\\_antibiotic-resistant\\_bacteria.pdf](https://www.whitehouse.gov/sites/default/files/docs/national_action_plan_for_combating_antibiotic-resistant_bacteria.pdf)