

Big Splashes & Ripple Effects: The Short- and Long-term Impact of Georgia CTSA-supported Pediatric Publications

Nicole Llewellyn, PhD¹, Amber Weber, MPH¹, Anne Fitzpatrick, PhD, RN, CPNP, MSCR^{1,2}, & Eric Nehl, PhD¹

¹Emory University, ²Children's Healthcare of Atlanta



INTRODUCTION

Georgia CTSA Pediatrics Publications
EVALUATING IMPACT & TRANSLATION

How are Pediatrics publications making waves?

- **Bibliometrics**, the study of supported publications, is used to evaluate the scope and impact of research programs
- Past research had limited ability to **connect support provided to research outputs** and to contextualize types of impact over time
- We evaluated Georgia CTSA support provided to **investigators conducting pediatric research**, a field that spans diverse research fields and is of strong interest to the broader community, and the publications that resulted from this support

PROCESS

- Records of Georgia CTSA support (e.g. clinical/expert support, pilot/training grants) and acknowledgement of grant support identified a portfolio of pediatric articles published over the past 11 years
- To assess **short-term impact** or **'splash'** made by articles we collected Altmetric Attention Scores from Dimensions, incl.:
 - Media/community attention
 - Early peer evaluation
 - Early academic readership
- To assess **long-term impact** or **'ripple effects'** of articles we collected citation data from iCite and Dimensions, incl.:
 - Accumulated citations and impact factor
 - Use in subsequent products and public documents
 - Translation to clinical use

EVALUATION RESULTS

250+ Supported Publications from 2007 - 2020

9,500+ academic citations

700 of which are clinical studies

3x the expected rate of citation impact

Steady Accumulation of Publications



15,000+ citations in media, community, & public documents, used in:

343 News Stories

8 Patents

25 Policy Documents

3,441 Tweets

72 Blog Posts

Big Splashes with Immediate Impact

PUBLICATION SPOTLIGHT
Acetaminophen versus Ibuprofen in Young Children with Mild Persistent Asthma
published in *The New England Journal of Medicine* in 2016
Research that refuted a link between acetaminophen and asthma exacerbation

Appeared in **41** news stories from **27** outlets
Physicians Bricking
EurekAlert!

Referenced in **2** academic blogs
Vector
BMJ Blogs

Cited in an international policy document

Author: Anne Fitzpatrick, PhD, RN, CPNP, MSCR received Georgia CTSA program support in:

- Clinical Research
- Informatics
- Plans
- Publications
- Medicine
- Research Education

Spreading the Word

Tweeted by **190** users

Reaching **1,200,000** followers across the globe

Ripple Effects with Broad Influence

PUBLICATION SPOTLIGHT
Neonatal outcomes of extremely preterm infants from the NICHD Neonatal Research Network
published in *Pediatrics* in 2010. Defining research in the fields of obstetrics and neonatology, with broad implications for public health policy and practice

1,000+ academic citations
Including **88** Clinical Articles

51x the expected citation rate for comparable papers

Continuing influence: of citations from the past two years
27%

Influencing policy: Cited in major CDC health report

Lead author: Barbara Stoll, MD received Georgia CTSA program support in:

- Informatics
- Clinical Research
- Biostatistics
- Pediatrics

Readers Across the Globe

Downloaded by **715** Mandalay users for academic use

OUTCOMES & IMPLICATIONS

- **Altmetrics** results paint an early picture of the considerable interest shown to supported pediatric publications and provide a preliminary indicator of the eventual impact of *'big splash'* papers
- Results of cumulative **Citations** in academic and public forums show the above-average downstream influence, or *'ripple effects'* of supported articles over time
 - Both show how papers have resulted in significant **advances along the translational spectrum**
- This research informs our understanding of the **aggregate impact** of Georgia-CTSA supported pediatric research and identifies specific research areas with the **most notable short- and long-term impact**

CONTACT

Contact: Nicole.Llewellyn@emory.edu

