



# How to write impact statements with Altmetric data

Altmetric.com | @altmetric  
altmetric.com/explorer  
support@altmetric.com



Patty Smith, MLIS  
engagement@altmetric.com

# Today's agenda

Walking through examples and ideas of how to:

- write about your research impact in a narrative format;
- summarize attention using bullet points;
- tell a compelling story using simple visuals.



# A few notes...

- I'm assuming participants have some knowledge about altmetrics
- No advanced skills are required to recreate these examples
- These examples are from one person's perspective
- We only have 30 min!



Let's chat!

[engagement@altmetric.com](mailto:engagement@altmetric.com)

Request a demo:  
[support@altmetric.com](mailto:support@altmetric.com)

# Defining impact



# Defining Impact

An 'effect on, change or benefit to the economy, society, culture, public policy or services, health, the environment or quality of life, beyond academia.'<sup>(1)</sup>



# Defining Impact

An 'effect on, change or benefit to the economy, society, culture, public policy or services, health, the environment or quality of life, **beyond academia.**'<sup>(1)</sup>





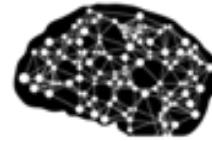
**Most stakeholders** that research is meant to reach **do not publish or do research.** They do **talk** about research.



General Public



Government &  
Policy Makers



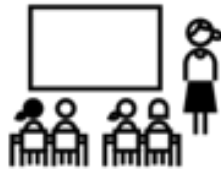
Investigators



Research  
communicators/  
watchdogs



Practitioners



Advocacy/  
Non-profits



Tech Transfer



Interested parties



# GOING BEYOND

“Dissemination is not impact: even if you have impressive numbers of reads, downloads, views or listens, how do you know if anyone learned anything from it, benefited, or did anything different as a result? **Keep asking, ‘what happened next?’**”<sup>(1)</sup>



What makes a 4\* research impact case study for REF2021? Mark Reed, Bella Reichard, Jenn Chubb, Ged Hall, Lucy Jowett and Alisha Peart <https://www.fasttrackimpact.com/single-post/2017/12/19/What-makes-a-4-research-impact-case-study-for-REF2021>. March 19, 2019.



Altmetric  $\neq$  Impact





Research  
Output



Research  
Impact

Challenge: how to bridge the gap between the  
research and its impact?





Research  
Output



Research  
Impact

Altmetric can be used to gather evidence to  
underpin the impact and add to the narrative



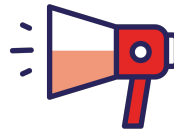
# Discover **pathways to impact** using Altmetric data, including:



**Policy  
mentions**



**Patent  
mentions**



**Mass media  
mentions**



**Social media  
mentions**



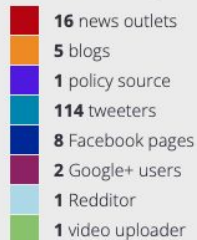


? About this Attention Score

In the top 5% of all research outputs scored by Altmetric

MORE...

Mentioned by



Citations



*Oral administration of morphine versus ibuprofen to manage postfracture pain in children: a randomized trial*

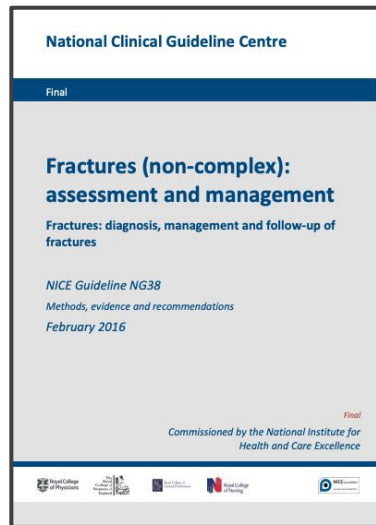
Canadian Medical Association Journal, October 2014  
10.1503/cmaj.140907





# Policy mentions

*Oral administration of morphine versus ibuprofen to manage postfracture pain in children: a randomized trial*



**Review question: What is the most effective initial acute pharmacological management to alleviate pain in patients with a suspected long bone fracture (tibia and fibula, humerus, radius and ulna, or unspecified) in acute care settings?**

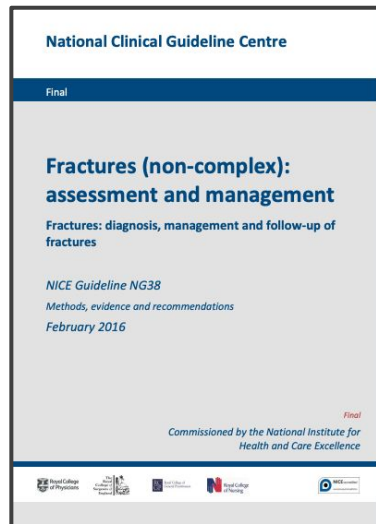






# Policy mentions

*Oral administration of morphine versus ibuprofen to manage postfracture pain in children: a randomized trial*



**Review question: What is the most effective initial acute pharmacological management to alleviate pain in patients with a suspected long bone fracture (tibia and fibula, humerus, radius and ulna, or unspecified) in acute care settings?**

## **Oral NSAIDs versus oral morphine (children)**

Moderate quality evidence from a single RCT of 134 patients demonstrated no clinical difference between the interventions for change in pain score, with no serious imprecision.

Moderate evidence from a single RCT of 134 patients demonstrated a clinical benefit with oral NSAIDs between the interventions for incidence nausea, with serious imprecision.

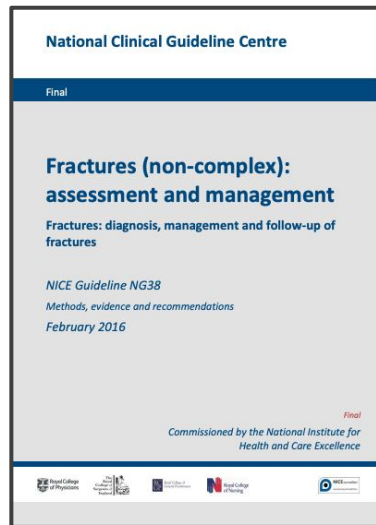
Moderate quality evidence from a single RCT of 134 patients demonstrated a clinical harm of oral NSAIDs over oral morphine in the reduction of further need for analgesia, with serious imprecision.





# Policy mentions

*Oral administration of morphine versus ibuprofen to manage postfracture pain in children: a randomized trial*



**Review question: What is the most effective initial acute pharmacological management to alleviate pain in patients with a suspected long bone fracture (tibia and fibula, humerus,**

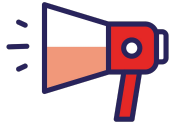
## Recommendations and link to evidence

### Children

1. For the initial management of pain in children (under 16s) with suspected long bone fractures of the legs (femur, tibia, fibula) or arms (humerus, radius, ulna), offer:
  - oral ibuprofen, or oral paracetamol, or both for mild to moderate pain
  - intranasal or intravenous opioids for moderate to severe pain (use intravenous opioids if intravenous access has been established).

### Recommendations

NSAIDs over oral morphine in the reduction of further need for analgesia, with serious imprecision.



# Mass media mentions

*Oral administration of morphine versus ibuprofen to manage postfracture pain in children: a randomized trial*

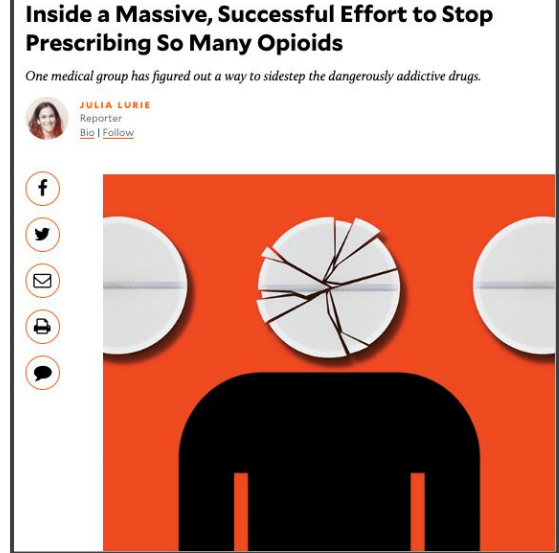


REUTERS

BY KATHRYN DOYLE  
Tue Oct 28, 2014 1:37pm EDT

(Reuters Health) – The narcotic drug morphine is not the best choice for pain relief in kids with broken bones, a new study suggests.

## MotherJones



Blog & Podcast:



### EMERGENCY MEDICINE CASES

Bringing you Canada's brightest minds in Emergency Medicine



# Social media mentions

*Oral administration of morphine versus ibuprofen to manage postfracture pain in children: a randomized trial*





# Forming a narrative

- Use plain language; avoid jargon
- Add context when you can, e.g. instead of listing the number of news outlets, give a bit more detail!
- Don't use the Altmetric Attention Score unless you provide more context
- What kind of impact are you trying to describe?
  - Global impact - consider highlighting number of countries
  - Academic impact - consider highlighting post publication peer reviews
  - Public impact - looks to news, social media, wikipedia, etc.





# Forming a narrative

*Use altmetrics to describe the reach and impact of your work*

“This work informed non-complex fracture guidelines from the National Institute of Health and Care Excellence recommending that pediatric patients receive ibuprofen to manage mild to moderate pain...”





# Forming a narrative

*Use altmetrics to describe the reach and impact of your work*

“This work informed non-complex fracture guidelines from the National Institute of Health and Care Excellence recommending that pediatric patients receive ibuprofen to manage mild to moderate pain. More broadly, this research has influenced conversations in mass media surrounding opioid addiction; it has also been described on social media as “practice changing” research by clinicians and government officials, evidencing the dissemination of this work to audiences beyond academia.”





# Forming a narrative

*Use altmetrics to describe the reach and impact of your work*

Short summary with numbers:

In addition to being cited 70 times, this paper has been mentioned in 16 news outlets including NPR and Reuters. It was also cited in the non-complex fracture guideline from the National Institute of Health and Care Excellence.





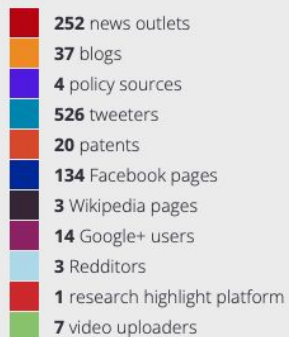


? About this Attention Score

In the top 5% of all research outputs scored by Altmetric

MORE...

Mentioned by



*Randomized Trial of Peanut Consumption in Infants at Risk for Peanut Allergy*

2015, NEJM

DOI: 10.1056/NEJMoa1414850



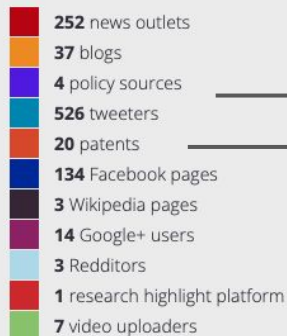


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Changing policy

Changing industry (patents related to allergen dosing food packets)

"Changes clinical practice" - expert reviews



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*Use altmetrics to describe the reach and impact of your work*

“This work led to sweeping reversals on policy regarding introducing allergens to children, including recommendations by American Academy of Pediatrics and National Institute of Allergy and Infectious Disease...





# Forming a narrative

*Use altmetrics to describe the reach and impact of your work*

“This work led to sweeping reversals on policy regarding introducing allergens to children, including recommendations by American Academy of Pediatrics and National Institute of Allergy and Infectious Disease. This work has also influenced public discourse on the topic, and the results have been shared widely on Twitter, clinicians’ Facebook pages, and mass media outlets including The New York Times and Washington Post, suggesting public awareness of this topic and translation to practice.”





# Forming a narrative

*Use altmetrics to describe the reach and impact of your work*

“This work led to sweeping reversals on policy regarding introducing allergens to children, including recommendations by American Academy of Pediatrics and National Institute of Allergy and Infectious Disease. This work has influenced public discourse, and the results have been shared widely online, including in 721 news stories in 35 countries, 1,120 tweets, and 192 Facebook posts. This work was also rated as ‘exceptional’ and ‘changes clinical practice’ by 2 experts on Faculty Opinions.”



## Publications

1. Randomized Trial of Peanut Consumption in Infants at Risk for Peanut Allergy, NEJM, Feb 2015. 25705822.
2. Impact of peanut consumption in the LEAP Study: Feasibility, growth, and nutrition, The Journal of Allergy and Clinical Immunology, October 2016. 27297994.
3. Association of Staphylococcus aureus colonization with food allergy occurs independently of eczema severity, The Journal of Allergy and Clinical Immunology, August 2019. 31160034.
4. Effect of Avoidance on Peanut Allergy after Early Peanut Consumption, NEJM, April 2016. 26942922.



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2. Impact of peanut consumption in the LEAP Study: Feasibility, growth, and nutrition, The Journal of Allergy and Clinical Immunology, October 2016. 27297994. **Q1 journal; 134 news stories, 7 patent mentions (WoS; Altmetric)**
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## Summary of Impact

- Of my papers published in the last 10 years, 79% have received Altmetric attention.
- My work has been mentioned in 1,781 news stories in 45 countries, including:
  - 20 stories in the New York Times
  - 18 stories in The Conversation
  - 16 stories in BBC News
- My work has influenced 88 policy documents in 8 countries, including government organizations in:
  - United Kingdom
  - United States
  - Netherlands
  - Australia

[Let's take a look](#)





# GIDEON LACK

*strategies to prevent and treat food allergies, eczema, asthma, and hay fever*

*Randomized Trial of Peanut Consumption  
in Infants at Risk for Peanut Allergy  
2015, NEJM*

## The New York Times

### New Product Is First to Claim It May Reduce Peanut Allergies

This paper has been cited in 20 patent applications, the majority of which are for new products to introduce allergens to infants by mixing powders into their food or milk/formula. This, in addition to sweeping reversals on policy regarding introducing allergens to children, demonstrate that this research is impacting patient care and current research is evaluating the decline in childhood allergies as a result.



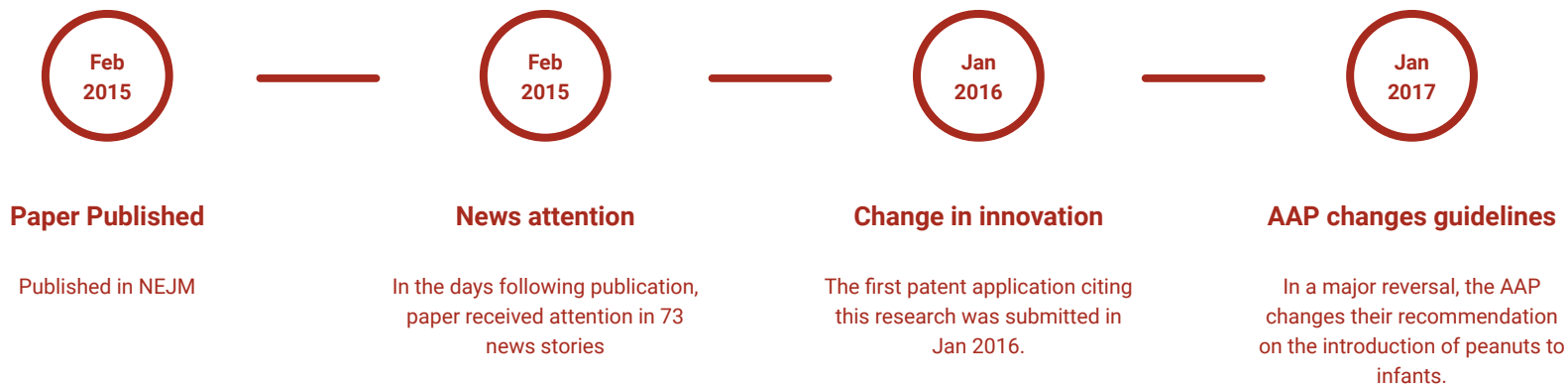
“The guidelines for how to approach allergens in children are changing, the science is changing, and it’s important for parents to know.”



# GIDEON LACK

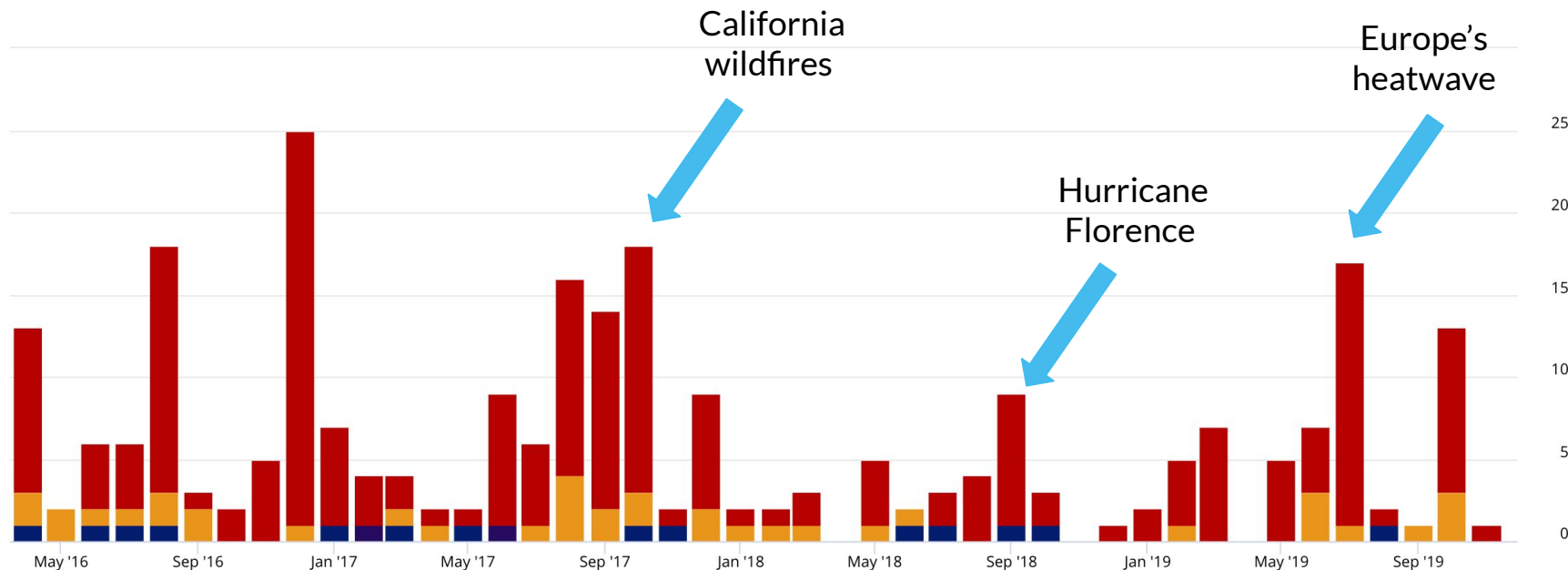
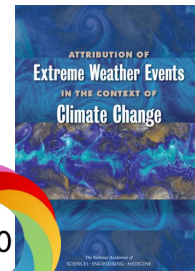
*strategies to prevent and treat food allergies, eczema, asthma, and hay fever*

*Randomized Trial of Peanut Consumption  
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2015, NEJM*



# Research being shared at key moments

*Attribution of Extreme Weather Events in the Context of Climate Change*

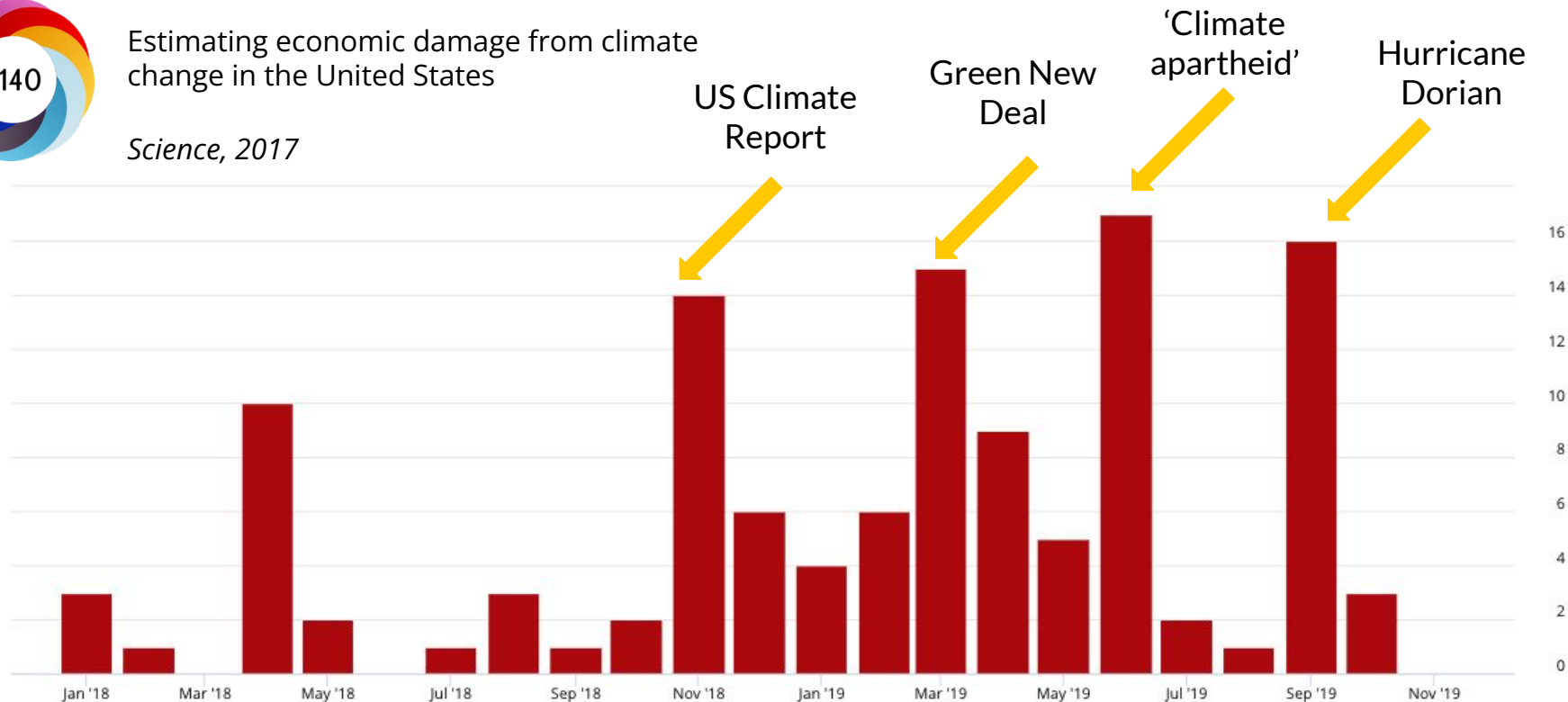


# Research being shared at key moments



Estimating economic damage from climate change in the United States

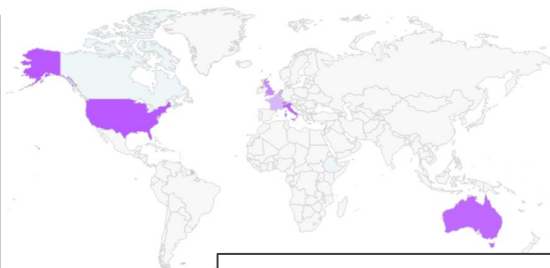
*Science*, 2017



# Global attention

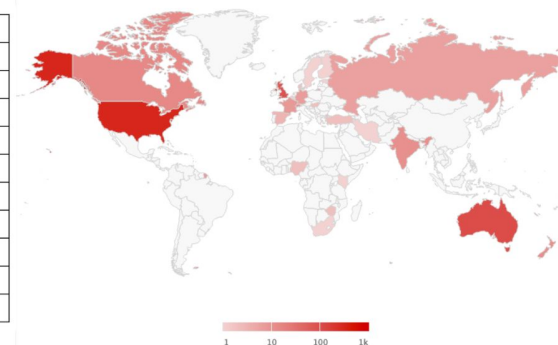
**Policy Sources:** There have been 343 policy documents that mention these outputs in 12 countries.

Top 10 Countries	Number of Policy Documents
Italy	85
United States	77
Australia	69
Switzerland	46
United Kingdom	23
Netherlands	21
Luxembourg	10
France	7
Canada	2
Côte d'Ivoire	1

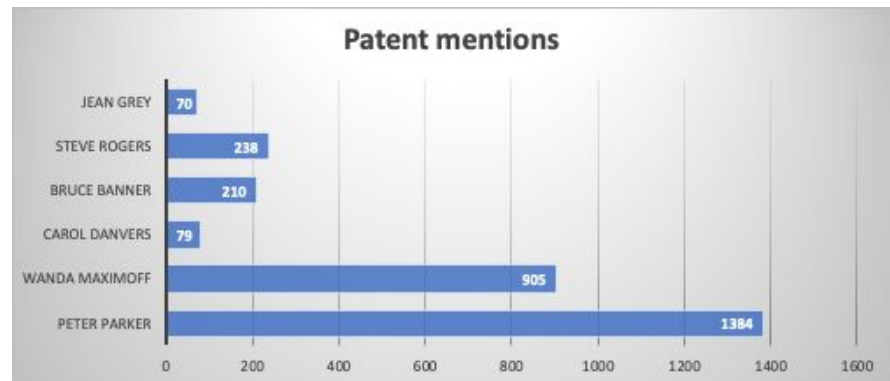
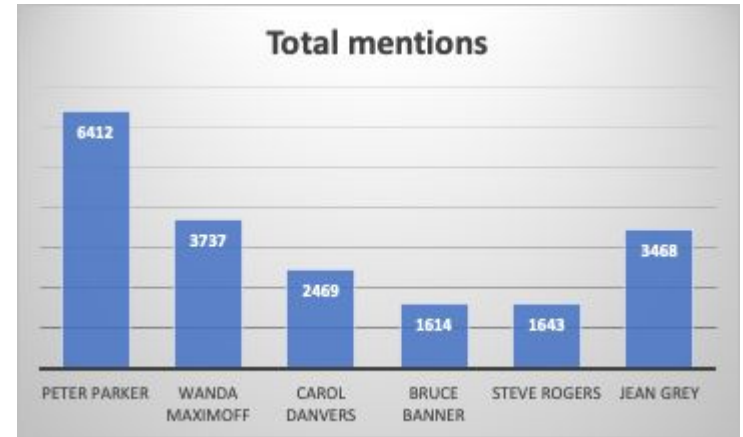
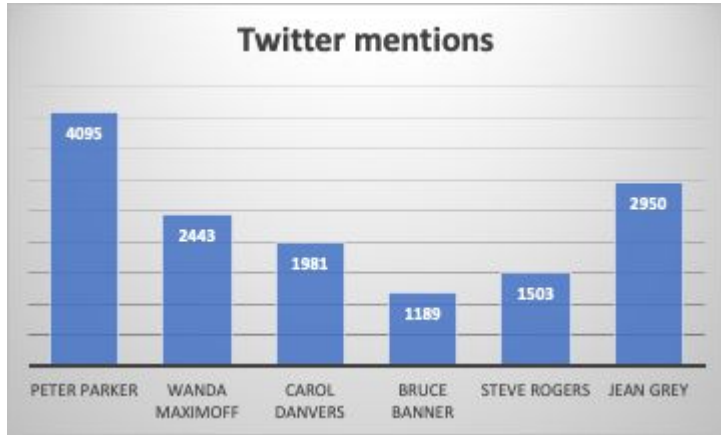


**News Outlets:** There have been 536 news stories about these outputs in 24 countries.

Top 10 Countries	Number of News Stories
United States	285
Australia	93
United Kingdom	80
Canada	11
New Zealand	10
Switzerland	9
France	7
Germany	7
Russia	6
Singapore	6



# Comparing attention by researcher, university, journal, funder, etc.



# Communicating the reach of research on Twitter

Top 10 tweeters	Number of tweets	Followers
DrMiguelPerales	66	15,506
AGCT_team	64	159
BLLPHD	53	5199
BldCancerDoc	50	16808
celltrialsdata	48	1122
Transplant_Doc	41	6162
aljurf100	33	1606
drjgauthier	31	3971
Mohty_EBMT	31	11239
DrRaulCordoba	29	7108

This is a Top 10 list of the Twitter accounts that are tweeting about Prof. Parker's research the most. Column 2 lists the number of times they've tweeted about his work and Column 3 lists their number of followers. *Data taken from the Mentions Sources tab in Altmetric Explorer.*





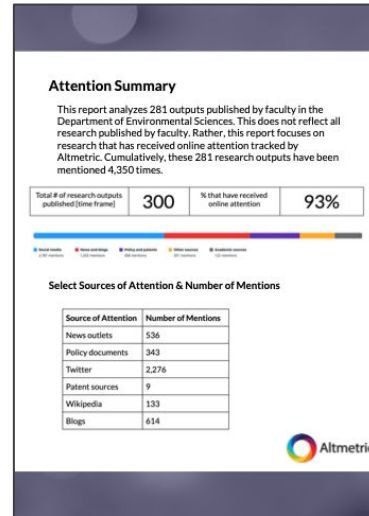
# Communicating the reach of research on Twitter

Top 10 most influential tweeters	Number of tweets	Followers
ScienceMagazine	1	2,400,000
NEJM	7	862,125
EricTopol	3	540,969
CMichaelGibson	1	438,219
NatureMedicine	2	263,069
georgebest1969	1	209,812
ASCO	1	123,970
matthewherper	2	107,577
sloan_kettering	1	91,787
biorxivpreprint	1	84,550

This is a Top 10 list of the most influential Twitter accounts that are tweeting about Prof. Parker's research. Column 2 lists the number of times they've tweeted about his work and Column 3 lists their number of followers. **These 10 accounts alone have upwards of 5 million followers;** Prof. Parker's research has also been shared by an additional 2,700 Twitter users. *Data taken from the Mention Sources tab in Altmetric Explorer*



# Report example



Let's chat!

[engagement@altmetric.com](mailto:engagement@altmetric.com)

Or request at demo at [support@altmetric.com](mailto:support@altmetric.com)!



# Thank you!

Questions?  
[support@altmetric.com](mailto:support@altmetric.com)