

# PUBLISHING EVIDENCE FOR IMPACT ON PRACTICE

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**LONDON**

# Aim and approach

## AIM

- To consider the contribution of academic publication to the development of the evidence base for professional nursing practice

## APPROACH

3 brief papers to stimulate discussion which address the following key questions:

- How to improve the quality of your papers to increase the chance of publication in high impact nursing journals?
- How to maximize the impact of your publications on nursing practice in the context of open access publishing and social media?
- Beyond the impact factor! What analytical tools are being developed to measure the impact of publications on nursing and on the world?

Leading the development of  
nursing practice and policy  
through successful publication

*Ian Norman, Sarah Davies,  
Peter Griffiths*



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# Why publish your work ?

- Moral duty
- **What's the point** of research or scholarship without dissemination?
- To change nursing practice – for the better
- Because you have something important to say
- To promote thought or debate
- To allow examination of your work
- To educate
- Personal and professional benefit
- practice makes perfect
- breaks down a project into manageable chunks
- make a public claim on your work
- career advancement
- fame and fortune!!





# How to win a dinghy race?

- Good tactics
  - Making the right decisions about which route to take around the course
  - AND
- Good skills
  - Tapping the power supply (wind)
  - Maximizing boat speed

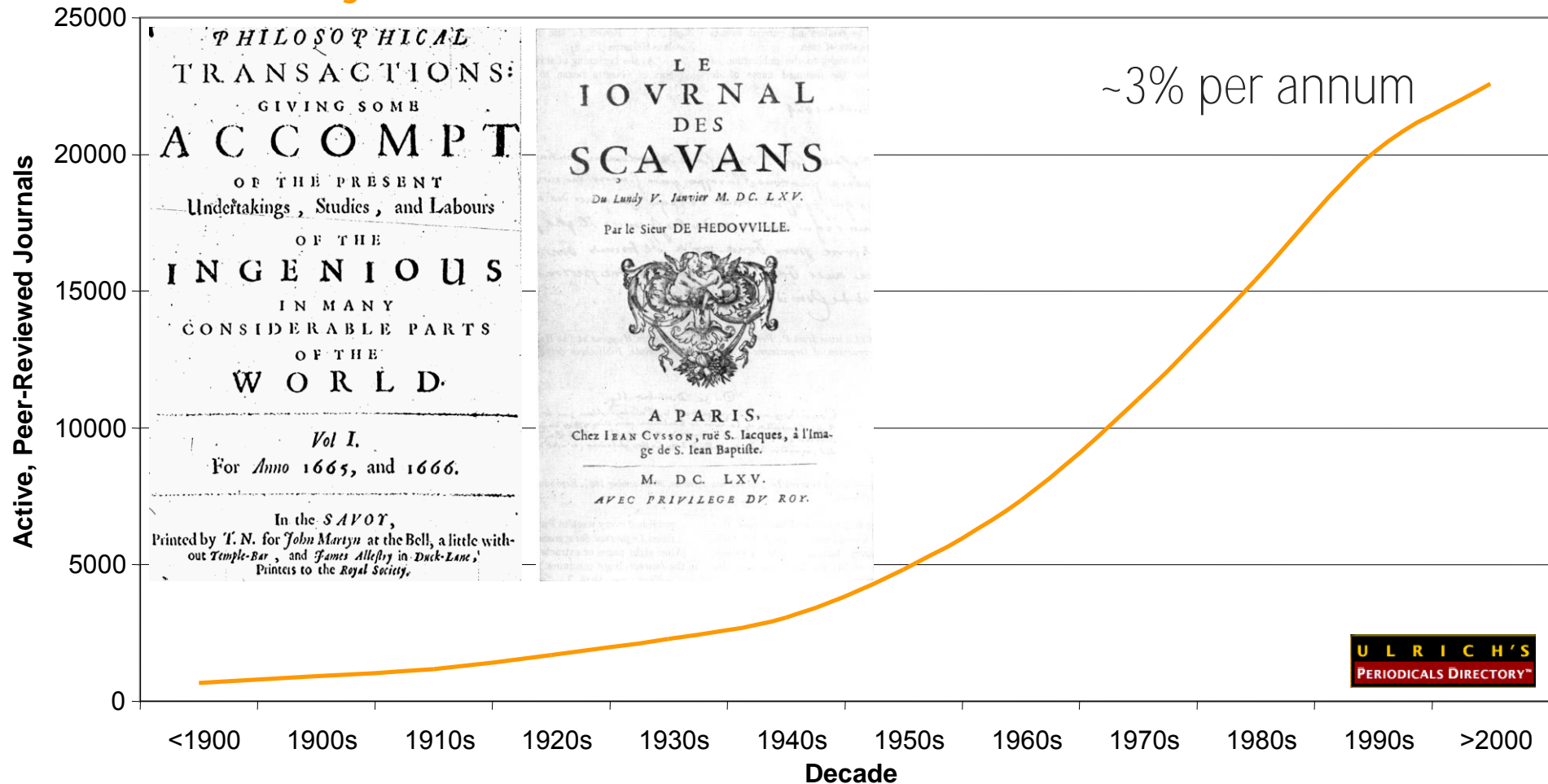
# How to get published?

- Good tactics
  - Making the right decisions about
    - » which journal?
    - » which subjects are topical?
    - » what types of papers are attractive to journal editors?
    - » who to write with?
  - AND
- Good skills
  - Maximising the quality of your written research reports
    - » clear structure
    - » good writing style (plain and simple)



GOOD TACTICS

# Which journal?



“**This** is truly the decade of the journal and one should seek to limit their number rather than to increase them, since there can be too many periodicals.” 1789

# Nursing Subject Category: Top 20 Ranked Journals\*

NURSING IMPACT FACTORS

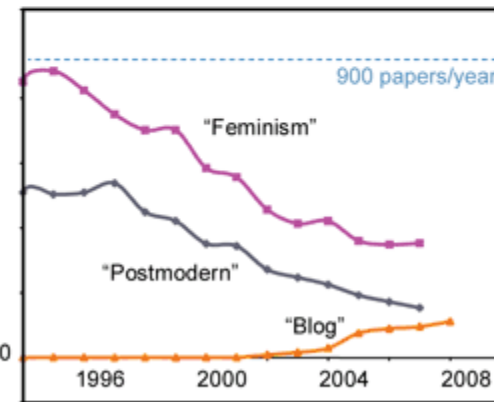
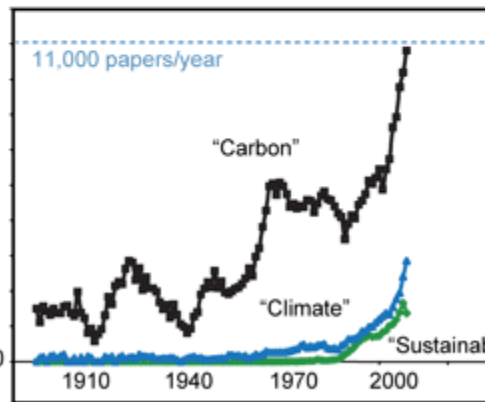
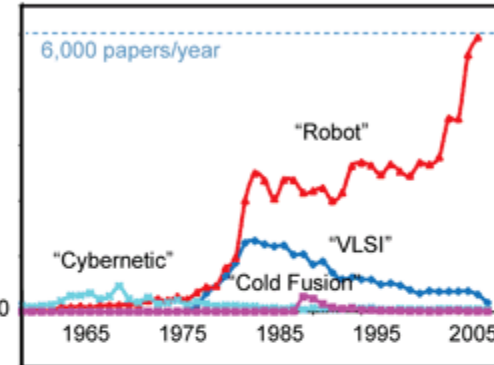
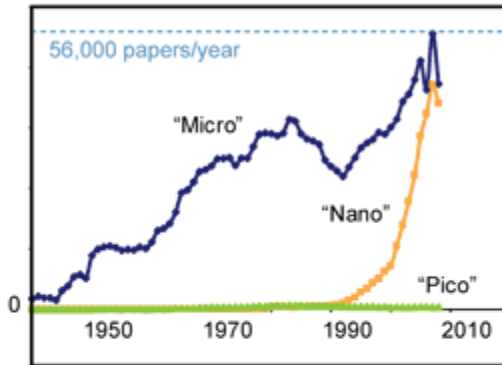
Rank	Full Journal Title	Total Cites	Journal Impact Factor	Impact Factor without Journal Self Cites	5-Year Impact Factor
1	INTERNATIONAL JOURNAL OF NURSING STUDIES	5,898	3.561	3.087	3.642
2	ONCOLOGY NURSING FORUM	2,897	2.708	2.434	3.291
3	European Journal of Cardiovascular Nursing	1,017	2.491	2.198	2.386
4	NURSING OUTLOOK	1,142	2.287	1.894	2.426
5	JOURNAL OF HUMAN LACTATION	1,372	2.233	1.85	2.132
6	Journal of Cardiovascular Nursing	1,433	2.172	2.023	2.172
7	AMERICAN JOURNAL OF CRITICAL CARE	1,898	2.053	1.553	2.293
8	CANCER NURSING	2,583	2.017	1.851	2.324
9	International Journal of Mental Health Nursing	1,143	1.943	1.557	2.127
10	JOURNAL OF ADVANCED NURSING	12,952	1.917	1.665	2.386
11	BIRTH-ISSUES IN PERINATAL CARE	1,921	1.867	1.759	2.462
12	MIDWIFERY	2,340	1.861	1.473	2.004
13	NURSING RESEARCH	3,261	1.856	1.825	2.335
14	EUROPEAN JOURNAL OF CANCER CARE	1,920	1.794	1.623	1.807
15	Journal of Family Nursing	541	1.775	1.2	2.03
16	Worldviews on Evidence-Based Nursing	609	1.762	1.349	2.31
17	Pain Management Nursing	999	1.745	1.404	2.294
18	Journal of Nursing Management	2,420	1.721	1.534	2.338
19	Journal of Tissue Viability	281	1.656	1.281	1.89
20	RESEARCH IN NURSING & HEALTH	3,324	1.638	1.532	2.332

\*Thomson Reuters journal citation reports 2016

# Finding the right topic!

## Buzzwords!

Number of papers published per year with the corresponding word in its title.

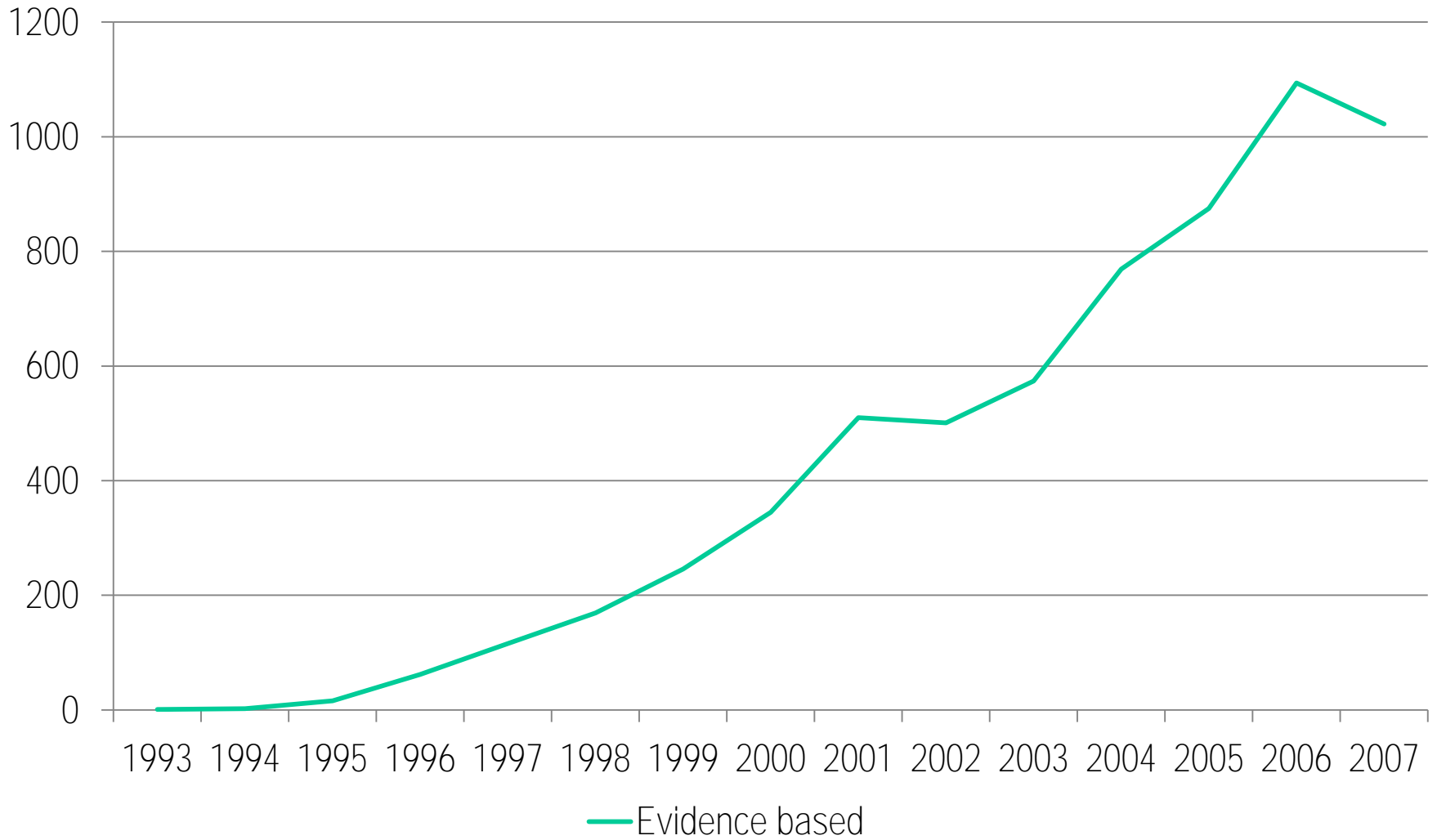


JORGE CHAM © 2009

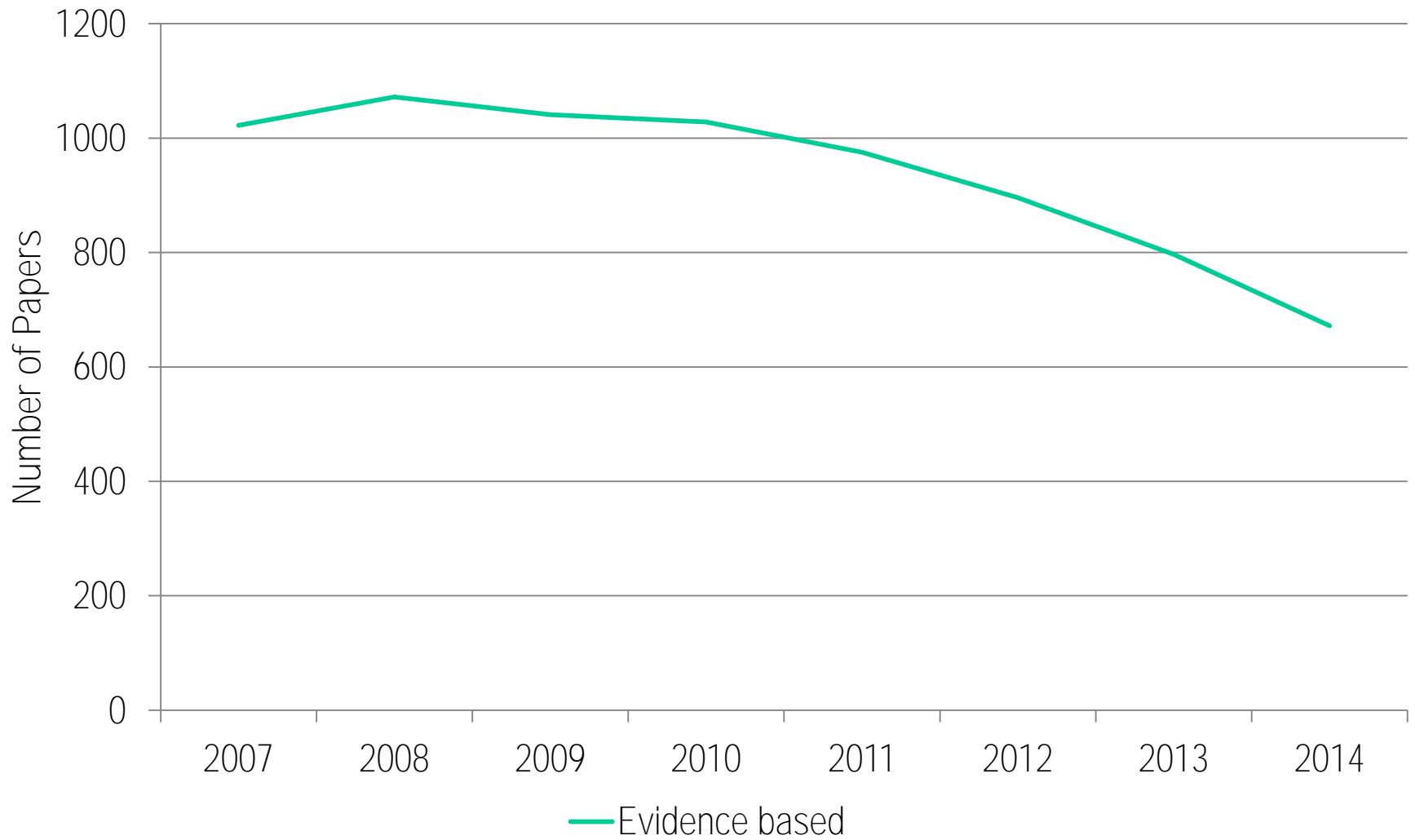
WWW.PHDCOMICS.COM

Scale: All figures normalized by number of journals in print each year.  
Sources: ISI Web of Knowledge, Ulrich's Periodicals Directory.

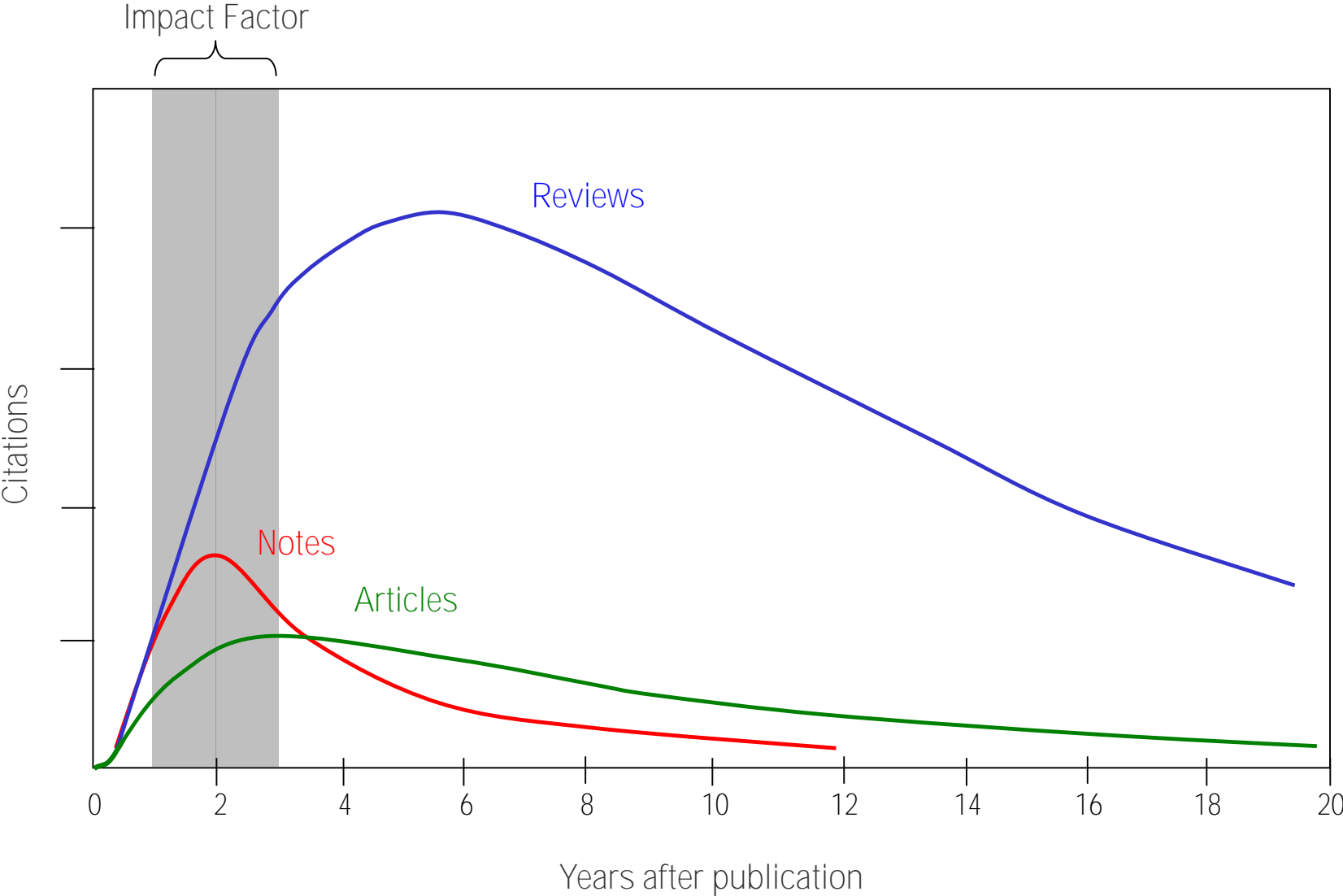
Papers with 'evidence based' in the title indexed by CINAHL



Papers with 'evidence based' in the title indexed by CINAHL



# Influences on the IF: Article Type



# What do editors want?

- Excitement - **“wow” factor**
- Important implications for nursing
- Novel/ Original
- Relevance to the readership
- True
- (Clearly written)
- (Engagingly written)



GOOD SKILLS

# For research papers: IMRaD

- **I**ntroduction - Why did I do it?
- **M**ethods - What did I do?
- **R**esults - What did I find?
- **D**iscussion- What might it mean?

# Fundamentals

- Title...(make subject and method explicit)
  - *'Towards an understanding of the quality of nursing care'*
  - *'Development and psychometric testing of a quality of nursing care scale for acute mental health inpatient wards'*
  - *Computer-aided vs. tutor-delivered teaching of exposure therapy for phobia/panic: randomized controlled trial with nursing students*
- Abstract...(structured, include some numbers – not all)
- Contribution
  - ...what is known already?
  - ...what the paper adds

# ...avoid 'first time in Oxford...'

- ...nobody has studied this before in
  - nurses
  - nursing students
  - Oxford, England, Spain, China...

...why is it important?

- ....what might be different?

Good writing style

(plain and simple)

# Be clear about ...

- *what* you want to say...
  - *who* you are saying it to...
  - *why* it is *interesting*...
  - *why* it is *important*...
- 
- Find a good paper as a model

- Short words..
- acquire                    *or*        get
- utilise                     *or*        use
- attempted                 *or*        tried
- voluminous               *or*        big
- *Often the first word that comes to mind is the best.*
  
- Short sentences
- Short paragraphs

# Exercise in plain English...

- 'Ensure that you have a message that you desire to convey to others and endeavour to articulate it in the **clearest manner possible**'.
- Can you do better?
- 'Say what you want to say clearly'



# Plain English

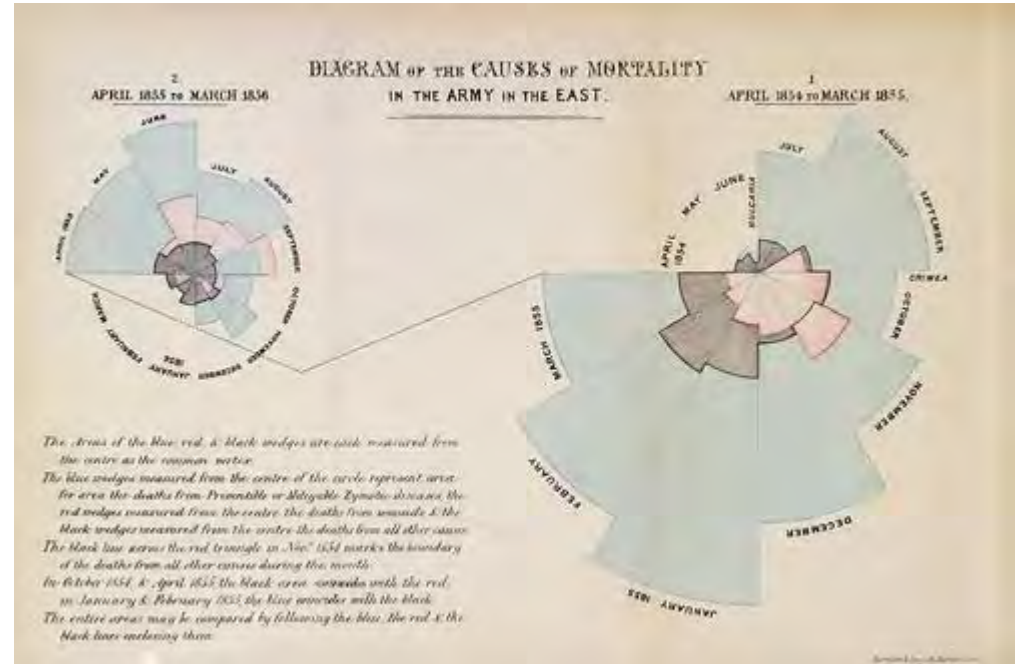
- President John F Kennedy was shot and killed by an assassin in Dallas this afternoon.
- Hospitals should do the sick no harm
  - *Who wrote that?*

# Florence Nightingale



THE PERRY PICTURE

FLORENCE NIGHTINGALE.



*Notes on Matters Affecting the Health, Efficiency, and Hospital Administration of the British Army (1858)*

# PEER REVIEW PROCESS

# What happens after submission?

- *IJNS* receives more than 1,400 papers each year
  - But can only publish about 150
  - So tough decisions have to be made
- **75% of all submitted papers 'screened out'**
  - others go out to peer review
  - Search of Medline/Scopus/Reviewer database for 2-3 suitable reviewers
    - alternative reviewers lined up
  - **Editors makes decision with benefit of reviewers' advice**

# “Do you want to go out with me?”

- Accept without changes [Yes!]
  - (bliss - rare at first round)
- Accept with minor changes by editor / author [maybe]
  - (also rare)
- Major revisions requested / re-review following major revisions  
**[I'm getting over someone, I'm off men!]**
  - (can feel like a rejection)
- Reject [No] **(she wasn't worth it!)**

# MAIN POINTS: Key to successful publication

1. Know what you want to write about and who you are writing for
2. Find a model paper to guide you
3. Spend time structuring your article
4. Write clearly and in plain words
5. Base article in relevant up-to-date international literature
6. Share with others whose writing you respect
7. Resist temptation for salami slicing
8. Send article to an appropriate journal in that journal's style
9. Understand what journal metrics are really saying
10. Have self-belief







# Maximizing the impact of your publications in an open access environment

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# From citation to impact...

- Consider traditional approaches to measuring scientific impact
- Explore pathways to wider engagement and 'impact'

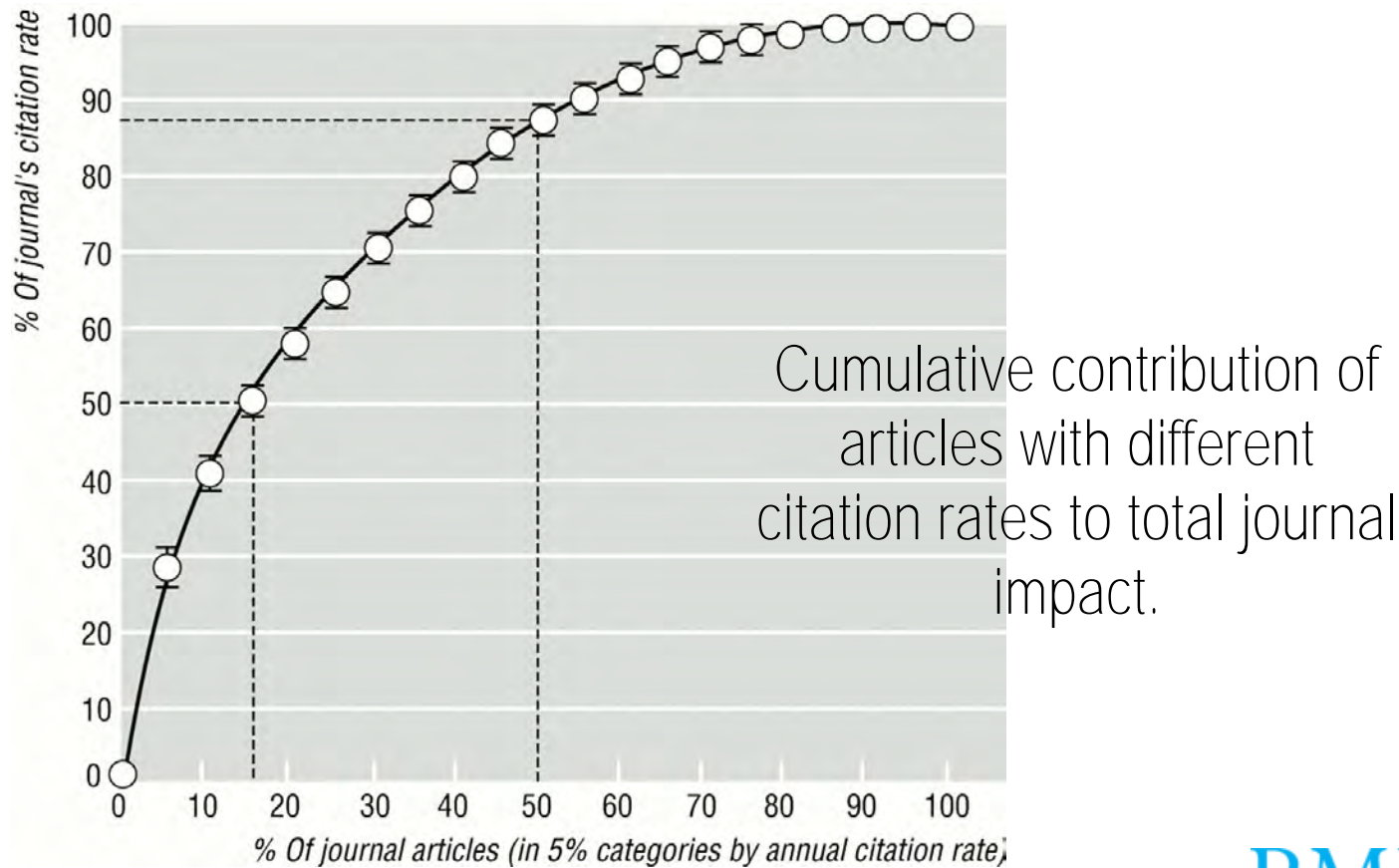
# Journal impact factor....

- calculated over 3 years as follows

$$\text{Impact Factor published in 2016} = \frac{\text{citations in 2015 to articles published in 2014 \& 2013}}{\text{number of articles published in 2014\& 2013}}$$

- Effectively gives the average number of citations to papers in the journal in the IF window....

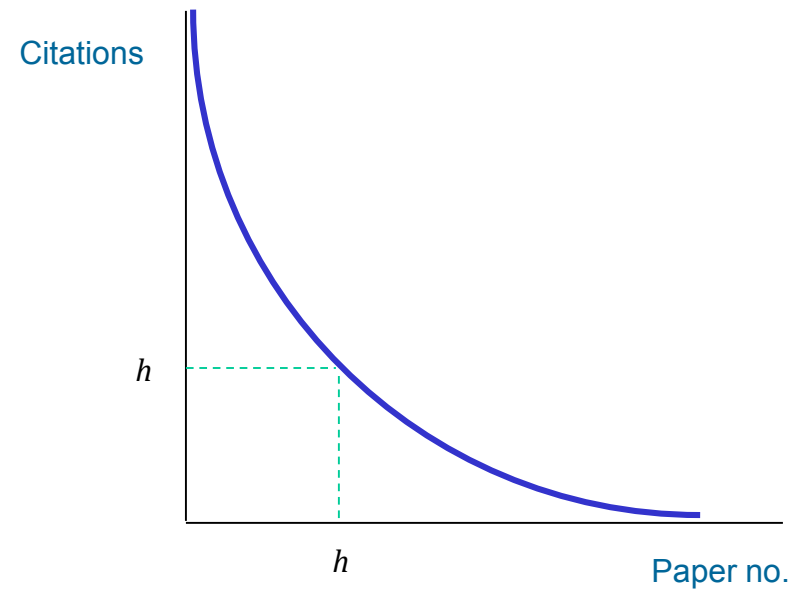
# Do high-impact journals always publish high impact papers? ...



BMJ

Seglen, P.O., 1997. Why the impact factor of journals should not be used for evaluating research. *Bmj* 314 (7079), 497.

# h-index



- Based on the set of the scientist's most cited papers and the number of citations that they have received in other publications.
- Available on commercial and freely available databases
- Rates individuals based on career publications
- Incorporates both quantity and “quality”
- Productivity and age constraints
- *“I propose the index  $h$ , defined as the number of papers with citation number  $\geq h$ , as a useful index to calculate the scientific output of a researcher” (Hirsch 2005).*

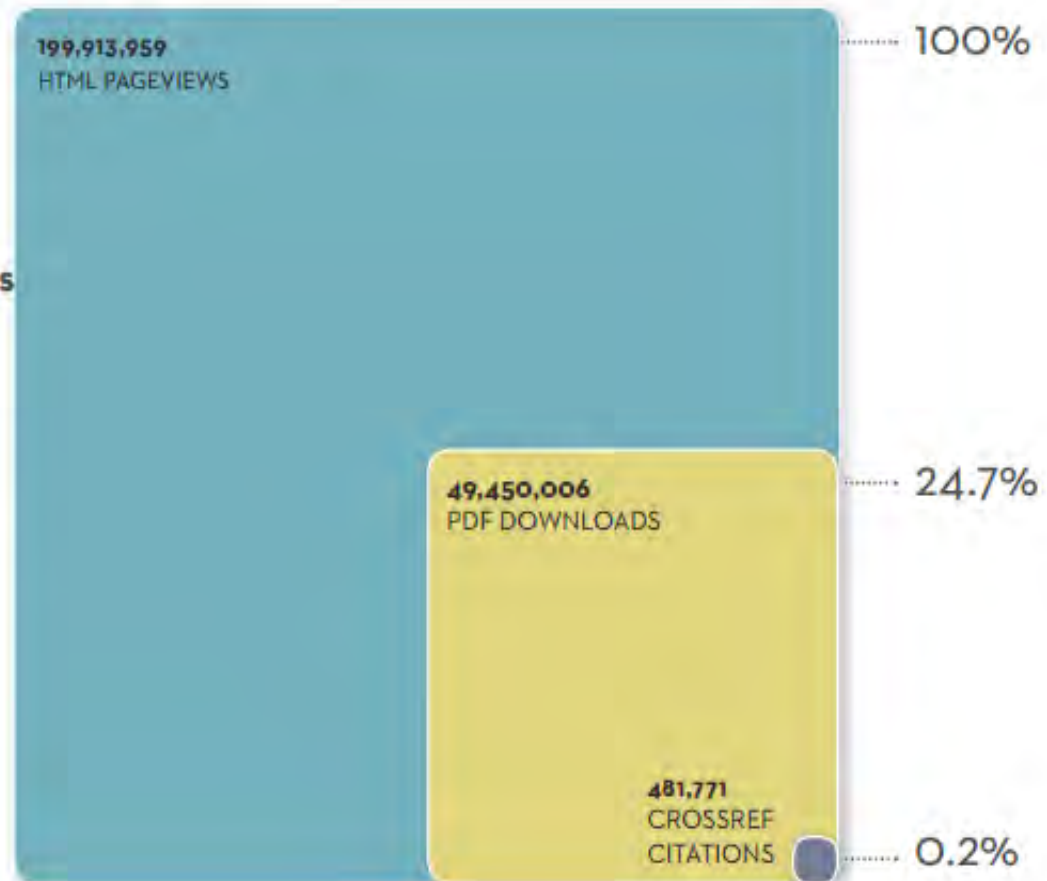
# H-index quiz

- I have published 4 papers. All have received over 1000 citations. What is my h-index?
- 4
- I have published 2000 papers. I have received 4000 citations. My highest cited paper has been cited 8 times. What is my *maximum possible* h index?
- 8

# Beyond citations: more inclusive evidence of usage...

Figure 2: PLOS ALM Comparison of Usage, Downloads, and Citations

**Article-Level Metrics**  
for  
**80,602** PLOS  
Papers Published  
until May 20, 2013



# What is impact?

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in areas beyond the scientific community such as:

- the economy
- society
- quality of Life
- culture
- health care

culture





# What isn't impact?

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There should be positive change – or BENEFIT

Need to demonstrate:

- your dissemination has had benefit
- evidence of reach and significance
- clear link between original research and subsequent impact confirmed by independent sources

*Dissemination must reach beyond academic circles...*

# Holy grail for impact in health research?

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- influence on policy
  - changes in practice
  - cost savings
  - health gains
- 
- Demonstrate how the nursing research has had a wider impact on nursing policies and practice, and *hence led to outcomes that could be valued.*
  - Requires robust estimates of both benefit and evidence of widespread implementation

# Open access publication=impact?

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Assumption that OA research

- *'...enables the prompt and widespread dissemination of research findings*
- *...benefits the efficiency of the research process*
- *... drives economic growth*
- *... increased public understanding of research'*  
(HEFCE, March 2014)

# What is Open Access?

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## Green OA

- author makes the article available for free, usually in an institutional repository or a central repository – e.g. PubMed Central
- Often a post-print version (**Author's Accepted Manuscript**).... **most publishers do not allow the publisher's PDF to be placed in a repository.**

## Gold OA

- fee is paid to publisher to ensure the final published version of the article is freely available. Fees range from £1500-£3000 per article
- Some publishers waive OA charge for authors from low income countries



## Gold OA offered by:

- **'OA' publishers**
- **'Hybrid' publishers which offers both subscription-based and OA publishing**




# Green or Gold?

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## Green OA

-  - **Great advantage to authors of not paying a 'gold OA' article processing charge**
-  - Care needed not to break copyright laws (e.g. requests from Research Gate)

## Gold OA

-  - The properly fully published version of the article is freely available to all
-  - High fees
-  - Emergence of **'predatory' OA journals**
  - Sometimes low fees but poor editorial and publishing services
  - Scientific scrutiny of peer-review is a sham
  - **List of 'predatory' journals is increasingly long**

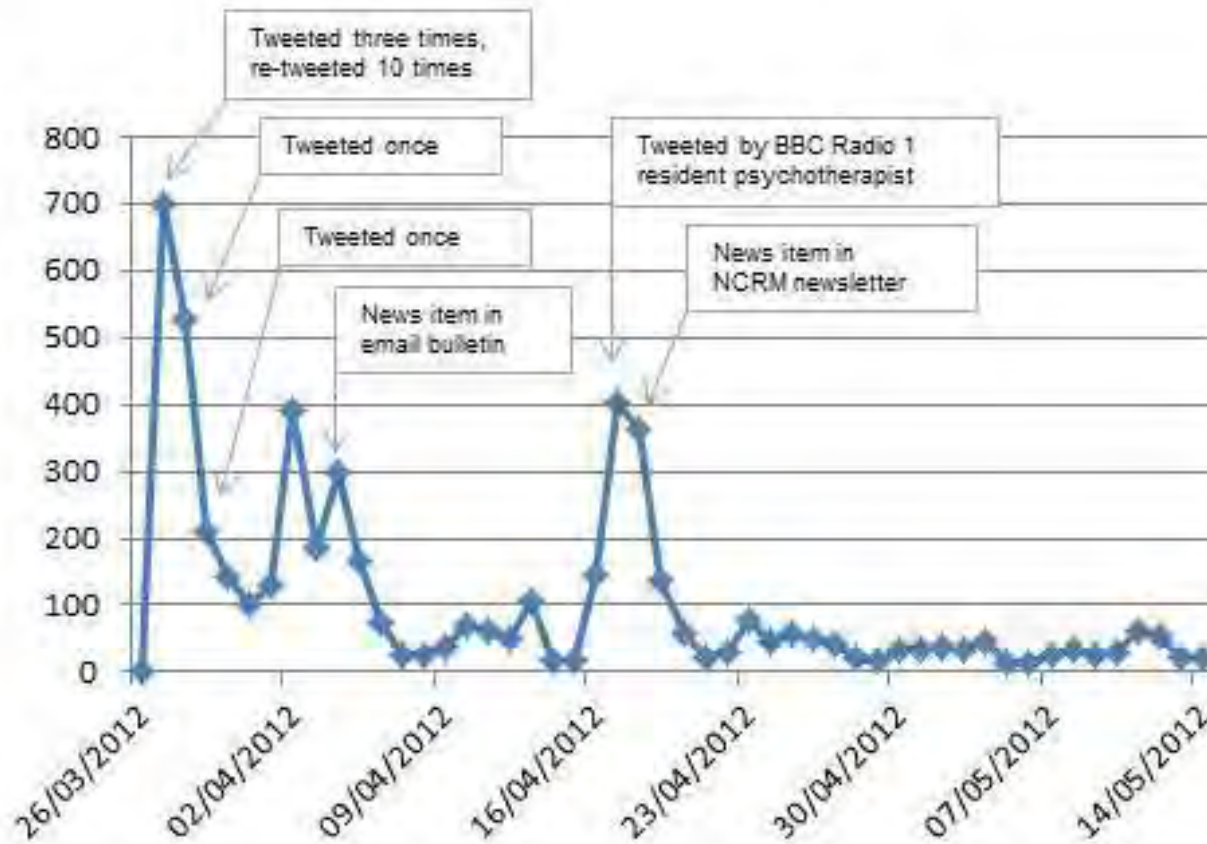
# Does OA publishing increase a paper's impact?

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Potential impact on:

- Citation analyses
- Article downloads (usage analysis)
  
- Methodological challenges of studies
- No demonstrated citation advantage of OA publishing
- May increase article usage by *practice communities*
- (Mohr 2012; Davis et al 2008, 2012)

# Effect of twitter and other communication channels on a paper's downloads



Kaisa Puustinen and Rosalind Edwards (2012) 'Who gives a tweet? After 24 hours and 860 downloads, we think quite a few actually do'. LSE Impact of Social Sciences blog.

<http://blogs.lse.ac.uk/impactofsocialsciences/2012/05/18/who-gives-a-tweet-860-downloads/>. 18 May

# Summary

- **Open access probably doesn't do much to increase your citation count**
  - Traditional measure of scholarly access
- **Open access probably does increase access to practice community**
  - Pathway to wider impact
- **Social media**
  - Drives article access
    - » ?More likely to be the public / practice communities?





# What can you do to increase the impact of your dissemination?

The image shows a screenshot of a Twitter profile page for 'IJNS nursing journal' (@IJNSJournal). The browser address bar shows the URL 'https://twitter.com/?lang=en'. The navigation bar includes 'Home', 'Notifications', 'Messages', 'Discover', and a search bar. The profile header shows the account name, handle, and statistics: 789 tweets, 837 following, and 2,062 followers. A 'London Trends' sidebar lists various hashtags. The main content area features a tweet from 'RC of Psychiatrists' (@rcpsych) with 1 retweet and 1 favorite, dated 3:58 PM on 2 Apr 2015. Below it is a retweet from 'Uni of Southampton' of a tweet from 'National Wind Tunnel' (@NWTF\_UK) dated Mar 31. The right sidebar shows 'Who to follow' with three suggestions: 'richard horton', 'Cheryl Metcalf', and 'Grand Villa St Pete'. The footer contains copyright information for 2015 Twitter and various links like 'About', 'Help', 'Terms', 'Privacy', etc.

Twitter, Inc. [US] <https://twitter.com/?lang=en>

Home Notifications Messages Discover Search Twitter Tweet

**IJNS nursing journal**  
@IJNSJournal  
TWEETS 789 FOLLOWING 837 FOLLOWERS 2,062

London Trends - Change  
#leadersdebate  
#ThingsJesusNeverSaid  
Happy Easter  
#lufc  
Karen  
#WorldAutismAwarenessDay  
Rochdale  
#MarvinsHipHopRandBMixtape  
Brendan Rodgers  
Amy Winehouse

What's happening?

View 7 new Tweets

**RC of Psychiatrists** @rcpsych · 2m  
Great infographic from @joinmq on the state of mental health research in the UK [joinmq.org/pages/mental-h...](http://joinmq.org/pages/mental-h...)

RETWEET 1 FAVORITE 1

3:58 PM - 2 Apr 2015 · Details

Reply to @rcpsych @joinmq

Uni of Southampton retweeted  
**National Wind Tunnel** @NWTF\_UK · Mar 31  
The R.J.Mitchell Tunnel at @unisouthampton; one of 17 open-access wind tunnels of the National Wind Tunnel Facility.

Who to follow · Refresh · View all

**richard horton** @richardhort...  
Followed by Linda Aiken and...  
Follow

**Cheryl Metcalf** @CherylMet...  
Follow

**Grand Villa St Pete** @Gran...  
Followed by Peter Griffiths a...  
Follow

Find people you know · Popular accounts

© 2015 Twitter About Help Terms Privacy Cookies Ads info Brand Blog Status Apps Jobs Advertise Businesses Media Developers Cricket

# But even more important

Above all – do good research –

- ***‘research impact ..built on poor quality research (is) unlikely to have reach and significance’***

- McKenna, H.P., 2015. Research assessment: The impact of impact. International Journal of Nursing Studies 52 (1), 1-3.

# Examining trends in nursing evidence based research and measurements of quality

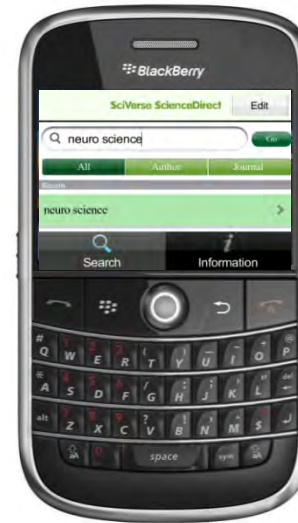
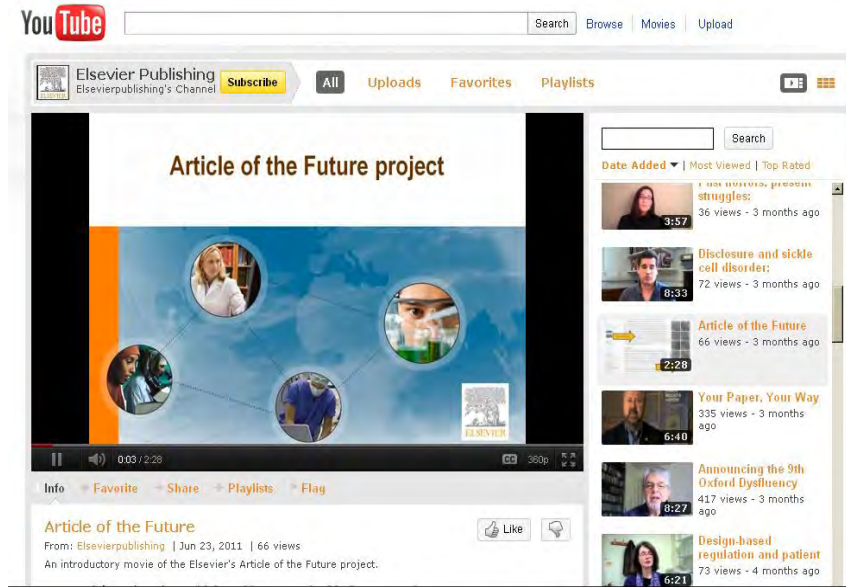
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# New ways to access and disseminate content



twitter

facebook

# The research space



# Nursing Subject Category: Top 20 Ranked Journals\*

NURSING IMPACT FACTORS

Rank	Full Journal Title	Total Cites	Journal Impact Factor	Impact Factor without Journal Self Cites	5-Year Impact Factor
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2	ONCOLOGY NURSING FORUM	2,897	2.708	2.434	3.291
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\*Thomson Reuters journal citation reports 2016

# Two Golden Rules for appropriate use of research metrics

Always use both qualitative and quantitative input into your decisions

Always use more than one research metric as the quantitative input

# Our aim: a basket of metrics that facilitates appropriate use of research metrics (1/2 dimensions)

Entities to which metrics apply:

Article

Custom document set

Journal, Conference, Book

Portfolio

Author, Editor, Reviewer

Institution or group

Subject Area



# Our aim: a basket of metrics that facilitates appropriate use of research metrics in all dimensions

Type of metric:

Community

Contributions

Consumption

Scholarly Impact

Social Impact

Editor  
Board  
Authors

Outputs  
Funding awards

Usage  
Citations  
Audience  
Patents

Scholarly Activity  
Academic Opinion

Social Activity  
Media Activity

Entities to which  
metrics apply:

Article

Custom document  
set

Journal,  
Conference, Book

Portfolio

Author, Editor,  
Reviewer

Institution or group

Subject Area

# Possible metrics that could comprise the basket of metrics and fill the gap

Type of metric:

Community	Contributions	Consumption	Scholarly Impact	Social Impact
Editor Board Authors	Outputs Funding awards	Usage Citations Audience Patents	Scholarly Activity Academic Opinion	Social Activity Media Activity


Entities to which metrics apply:

- Article
- Custom document set
- Journal, Conference, Book
- Portfolio
- Author, Editor, Reviewer
- Institution or group
- Subject Area

Geographical spread	Scholarly Output	CiteScore	Scholarly Discussion	Social media mentions
Collaboration network	Research data output	SNIP, SJR, IF	Mendeley Counts	Media mentions
Sector distribution	Conference output	Citation counts	Peer review metrics	Medical guidelines
<i>h-, g-, m-</i> indices	Funding sources	Usage counts	Prizes and awards	Influence policies
Individual metrics		Audience		
		Patent metrics		

Where available, article-level metrics are captured for all articles in Scopus

Emerging Infectious Diseases  
Volume 21, Issue 2, 2015, Pages 3  
[Open Access](#)

**Potential sexual transmission of Zika virus from a man in Polynesia**  
Musso, D. , Roche, C., Ruppel, O., et al.  
Institut Louis Malardé, Papeete, Tahiti, French Polynesia

**Abstract**  
In December 2013, during a Zika virus outbreak in French Polynesia, a man was isolated from his semen. Zika virus could be transmitted sexually.








**Indexed keywords**  
EMTREE drug terms: virus  
EMTREE medical terms: sexual transmission; nucleotide sequence; protein; genetics; Polynesia; sexual transmission  
MeSH: Adult; Disease Outbreaks; *Medline is the source for this article*

**Molecular Sequence Number**  
ISSN: 10806040 CODEN: EID  
DOI: 10.3201/eid2102.141363  
Publisher: Centers for Disease Control and Prevention


**References (15)**  
 Page  CSV export

- Dick, G.W.A. 1 **Zika Virus (I).** *Isolation and characterization of the virus (1952) Transactions of the Royal Society of Tropical Medicine and Hygiene* doi: 10.1016/0035-9296(52)90001-0 [Full Text](#) View
- Duffy, M.R., Chen, T., et al. 2 **Zika virus outbreak on Yap Island, Federated States of Micronesia** (2009) *New England Journal of Medicine* <http://content.nejm.org/cgi/doi/10.1056/NEJMoa1410861> [Full Text](#) View

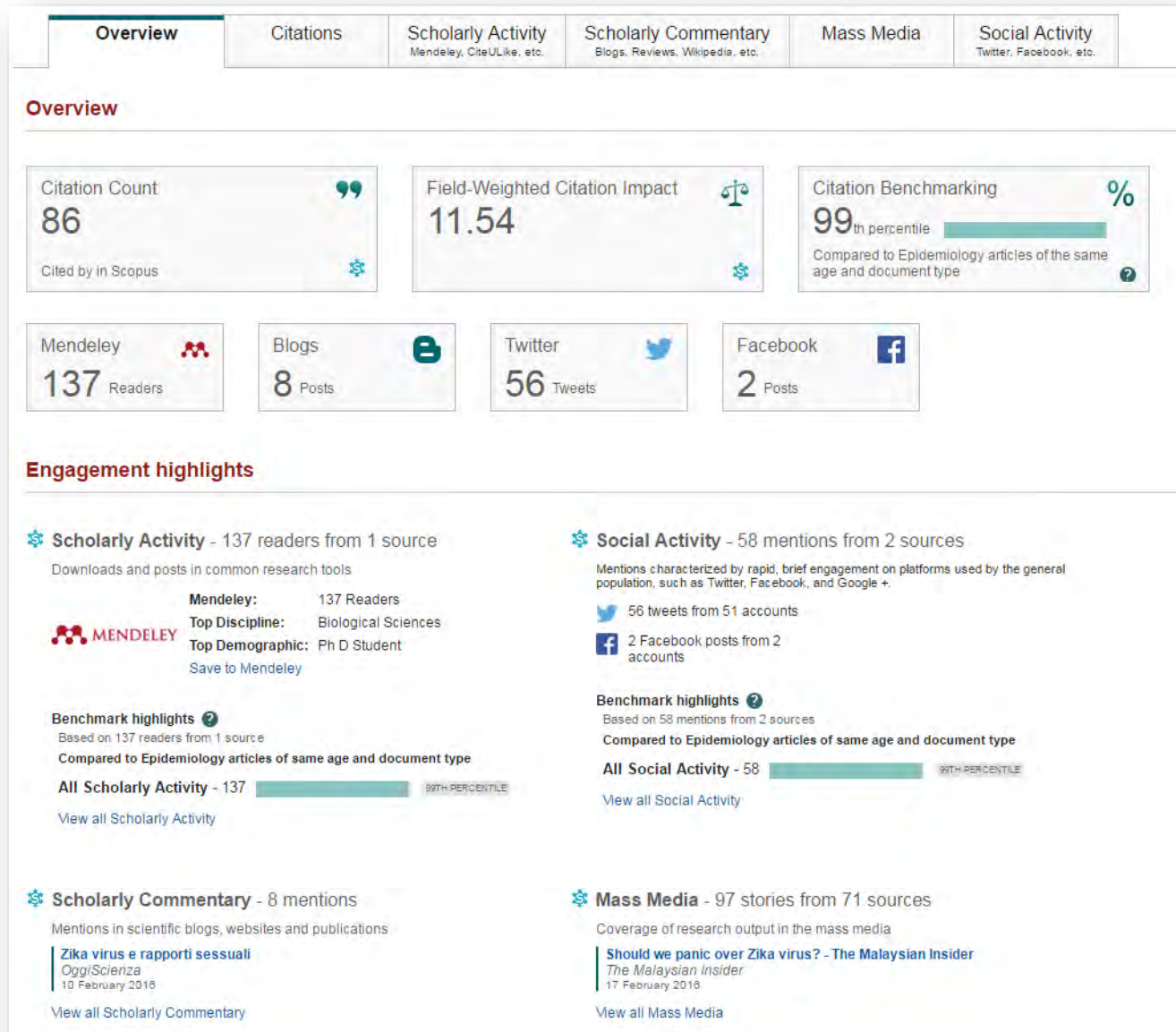
## Metrics

	<b>86</b>	Citations	99TH PERCENTILE
	<b>11.54</b>	Field-Weighted Citation Impact	
	<b>137</b>	Mendeley Readers	99TH PERCENTILE
	<b>8</b>	Blog posts	
	<b>56</b>	Tweets	99TH PERCENTILE
	<b>97</b>	Mass Media stories	
	<b>2</b>	Posts on Facebook	98TH PERCENTILE

*Select data provided by altmetric.com*

 [View all metrics](#)

# Multiple types of article-level metrics provide a more complete view of the performance of an article



## Journal Impact Factor

- + Easy to calculate
- Numerator & Denominator misaligned
- Brief citation window
- Field dependent metric
- Subject to manipulation

JCR Data <sup>(j)</sup>				Eigenfactor <sup>®</sup> Metrics <sup>(j)</sup>	
Impact Factor	5-Year Impact Factor	Immediacy Index	Cited Half-life	Eigenfactor <sup>®</sup> Score	Article Influence <sup>®</sup> Score

WEB OF SCIENCE<sup>®</sup>



THOMSON REUTERS<sup>®</sup>

## Journal Level Impact Metrics

Scopus

SJR

SNIP

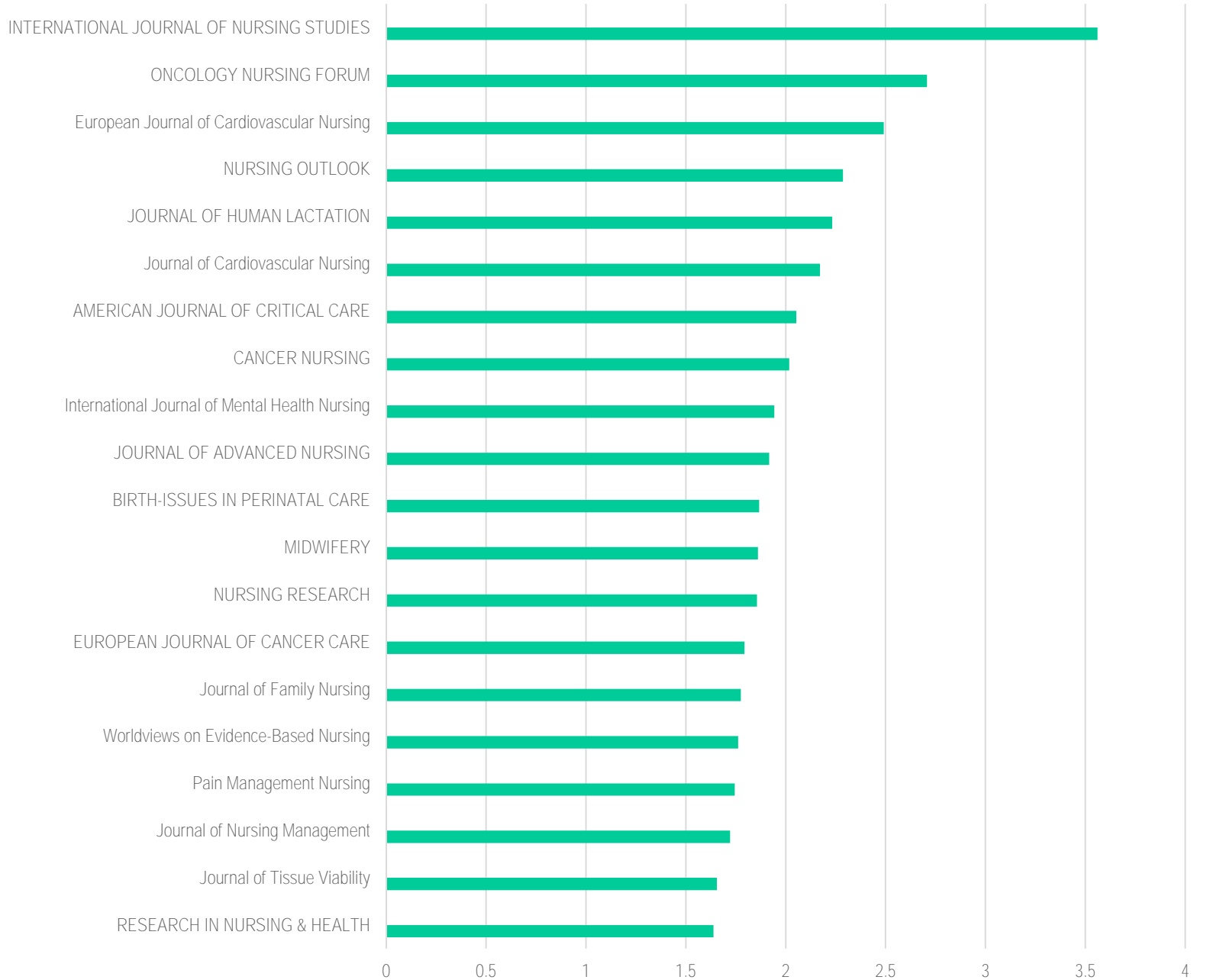
- Complex calculation
- + Easy-to-understand value
- + Measures journal prestige
- + Self-citations are limited in effect
- + Available for more journals

- Complex calculation
- + Easy-to-understand value
- + Normalized to local citation environment
- + Enables comparison across fields
- + Available for more journals

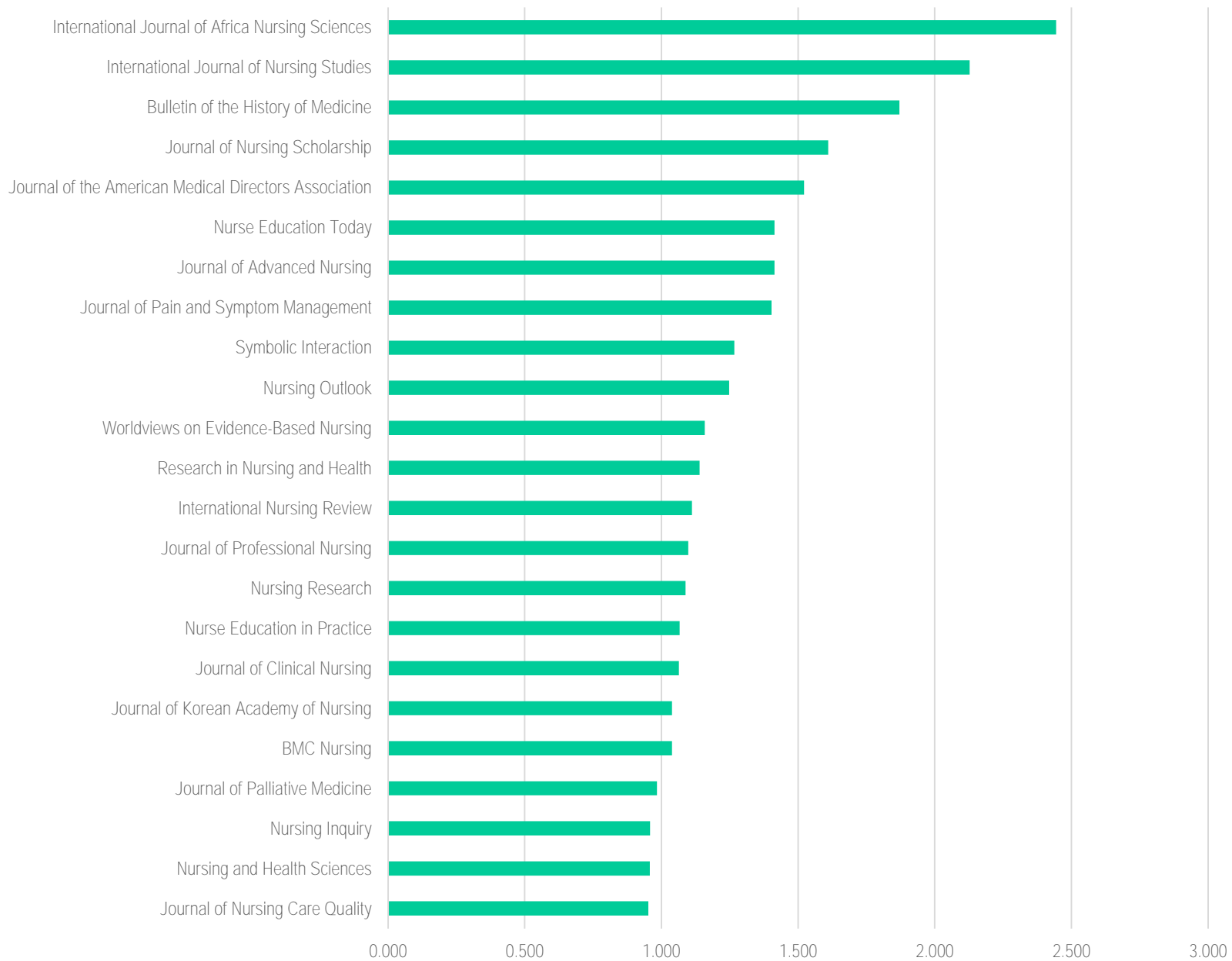
eigenFACTOR

- Complex calculation
- + Easy-to-understand value
- + Measures journal prestige
- + Self-citations are limited in effect
- + Available for more journals

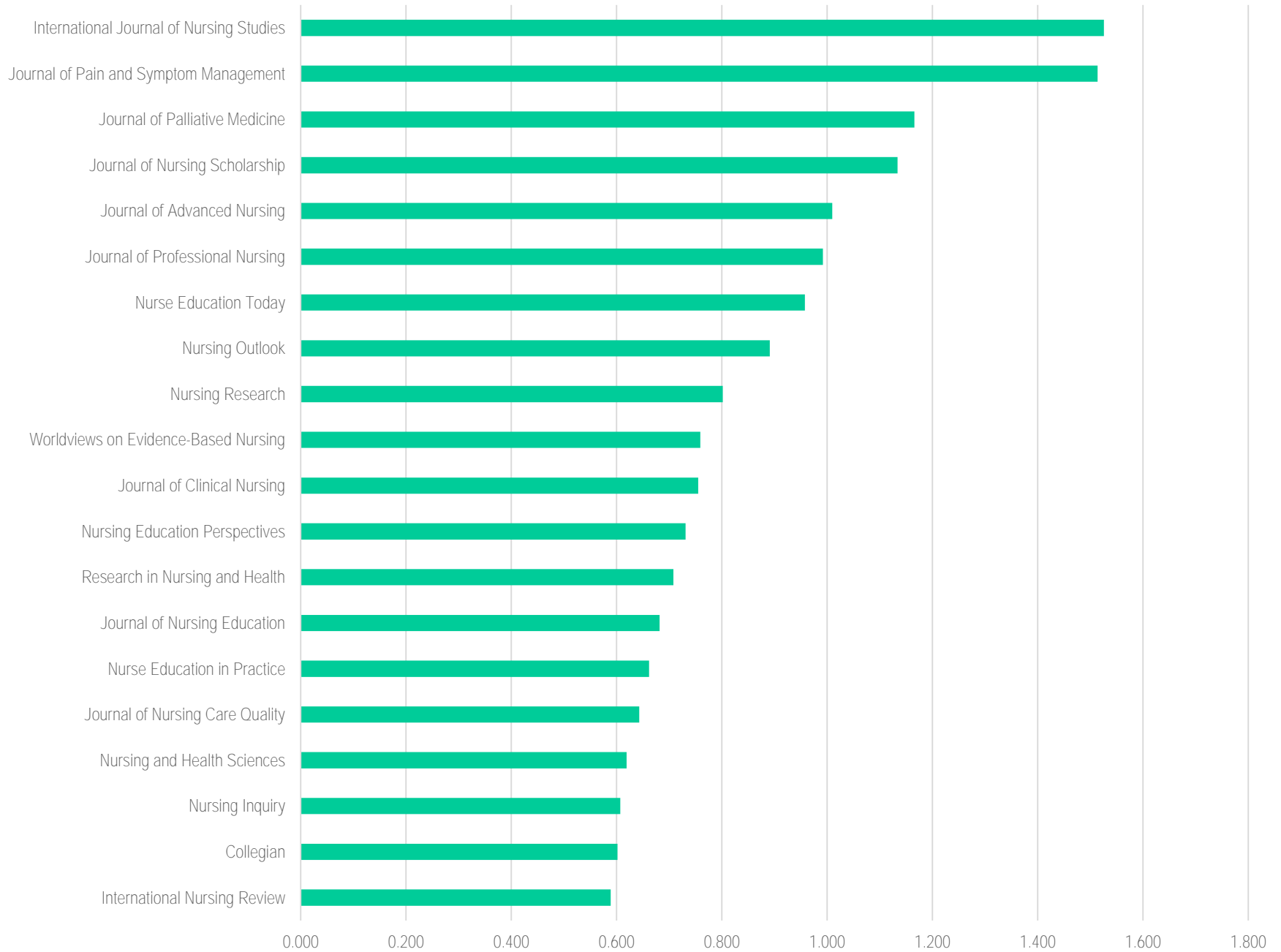
## 2015 Impact Factor



# SNIP 2015



# SJR 2015





## Article level Impact Metrics

## Individual level Impact Metrics



- The h-index is a citation performance indicator which depends both on the **quantity** (number of papers published) and **quality**(citation impact) of a set of papers
- **Individual** researchers
- **Groups** of papers

### Other impact measures

**Journal Usage Factor (JUF)**

**Peer review**

**FI000Prime**



Up to now this article has been mentioned 313 times by 305 sources.

#### Sources

- 2 Facebook users
- 2 science blogs
- 1 Google+ user
- 1 news outlet
- 299 tweeters

#### Saved to reference managers

- 0 CiteULike
- 1 Mendeley

# Author measurement and tracking tools – tracking one's own “impact”

## Where are your readers coming from? ?

**Last month**, most views came from United States, while your biggest **overall audience** is from United States.





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PUBLISHING EVIDENCE  
FOR IMPACT ON PRACTICE

*KEY MESSAGES*



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*College*  
**LONDON**

# Publishing for impact – key messages

- If you have a message which informs nursing policy or practice then dissemination is a moral duty
  - have self belief
- Identify your target audience
- Communicate your message clearly
- Understand your success
  - dissemination and impact
  - **use metrics (but don't be fooled by them!)**



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Thank you

*Sarah Davies, Peter Griffiths,  
Ian Norman*



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