

Do the **updated** ICMJE criteria make a difference ?

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ICMJJE 'criteria':

- C1 Conception or design or acquisition, analysis, or interpretation of data*
- C2 Drafting or revising it critically*
- C3 Final approval*
- C4 Agreement to be accountable for all aspects of the work (2013)*



- Increasing number of authors on byline
- Honorary authors
- Conflict of interest
-

Previous studies...

	% articles with honorary author
Flanagin et al. 1998.	Annals 25% , JAMA 23% , NEJM 18% , 16% , 23% , 11%
Yank, Rennie.1999.	Lancet 44%
Hwang SS et al. 2003.	Radiology 33%
Marušić et al. 2004.	CMJ 60%
Bates et al.2004.	JAMA 4% , BMJ 21% , Annals 60%
Wislar et al. 2011.	21% 6 journals
Dotson B et al. 2011.	Honorary authors appear towards the end of a longer byline

Does the introduction of the **4th criterion** (C4) in 2013. make any difference?

METHODS

- authors' self-reported contributions in 2091 published articles
- biomedical journals:
 - 9 general
 - 8 experimental
- publicly available disclosures of contributions
- published before/after the introduction of C4 in 2013

Medicine

General and internal medicine

High IF (IF>10):

Lancet,
JAMA,
BMJ,
Ann Intern Med,
PLoS Med

Low IF (IF <10):

BMC Med,
BMJ Open,
Canadian Fam Phys,
Croat Med J

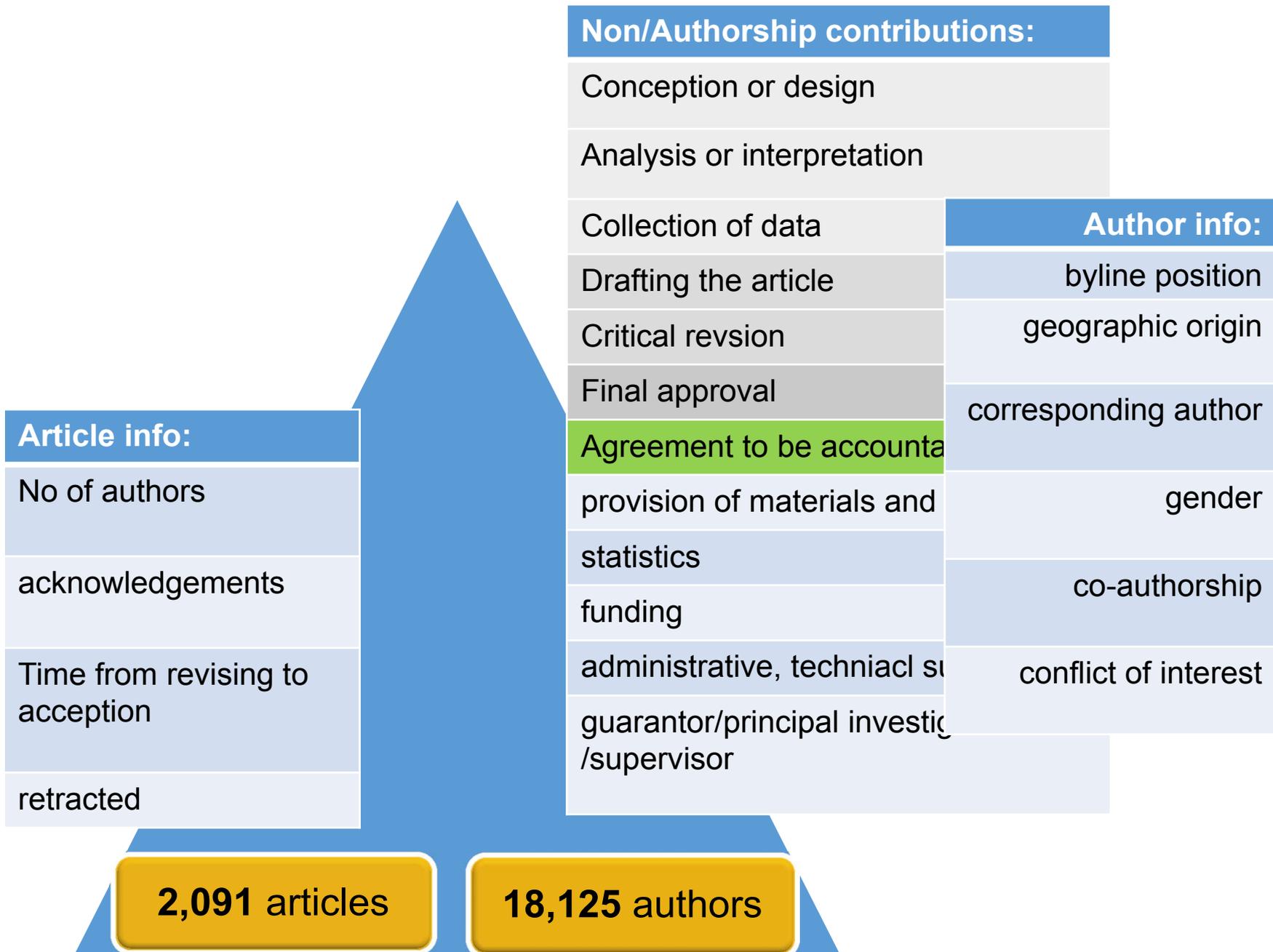
Experimental and research medicine

High IF (IF>5):

Nature Med,
EMBO Mol Med,
Clinical Science

Low IF (IF<5):

Stem Cell Res,
Orphanet J Rare Dis,
J Biomed Sci,
Trials,
Med Sci Monit.



Articles

No. of authors:
9 ± 7

Review time:

137 ± 84 days

144 before vs. 133 after 2013

141 in exp. vs. 129 in gen. med. j.

Authorship Criteria and Disclosure of Contributions
Comparison of 3 General Medical Journals With Different Author Contribution Forms

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Context: A number of general medical journals and the International Committee of Medical Journal Editors (ICMJE) request authors to disclose their contributions. Little is known about the effect of journal policies on authors' disclosures of their contributions.

Objective: To determine the number of named authors who do not meet ICMJE criteria for authorship, according to their published contributions, in 3 medical journals with different contribution disclosure practices.

Design: Observational study of authors' contributions in research articles published in 2002 in *Annals of Internal Medicine* (n=72), *BMJ* (n=107), and *JAMA* (n=81). *BMJ* asks authors to describe research contributions in their own words; *Annals* asks authors to choose from a list of coded contributions; and *JAMA* uses a structured checklist with instructions on contributions that qualify for ICMJE authorship criteria. Honorary authorship was defined as the lack of contribution from the first ICMJE criterion (study conception and design, or acquisition of data, or analysis and interpretation of data) and/or second (drafting the article or critical revision for important intellectual content) ICMJE criterion.

Results: According to authors' published contributions, the number of honorary authors was highest in *Annals* (121/562 authors, 21.5%), followed by *BMJ* (146/452, 32.5%), and *JAMA* (21/64, 32.8%) (p=146.67, P<0.001). The number of articles with honorary authors was 60% in *Annals*, 21% in *BMJ*, and 4% in *JAMA*. Honorary authors had fewer published contributions than authors who met ICMJE criteria and were positioned more toward the end of the byline. Honorary authors either lacked contributions for both ICMJE criteria (10% in *Annals* and 22% in *BMJ*) or contributions to the second ICMJE criterion (7.9% in *Annals*, 67% in *BMJ*, and 2 out of 3 in *JAMA*).

Conclusions: General medical journals differed in prevalence of honorary authors according to published research contributions of named authors. Different authorship/contribution policies and procedures should be explored as a possible explanation for the differences in contributions disclosed by authors among these journals.

JAMA. 2004;292:86-88. www.jama.com

effect on the number of authors whose published contributions do not meet ICMJE criteria for authorship, we analyzed published statements of authors' contributions in 3 major general medical journals. We studied journals with 3 different contribution disclosure practices: *BMJ*, which asks authors to describe research contributions in their own words⁸; *Annals of Internal Medicine*, which asks authors to choose from a list of contributions and associated letter codes and mark those codes on an author's form⁹; and *JAMA*, which requires authors to complete a structured checklist that itemizes how many contributions qualify for ICMJE authorship criteria.¹⁰

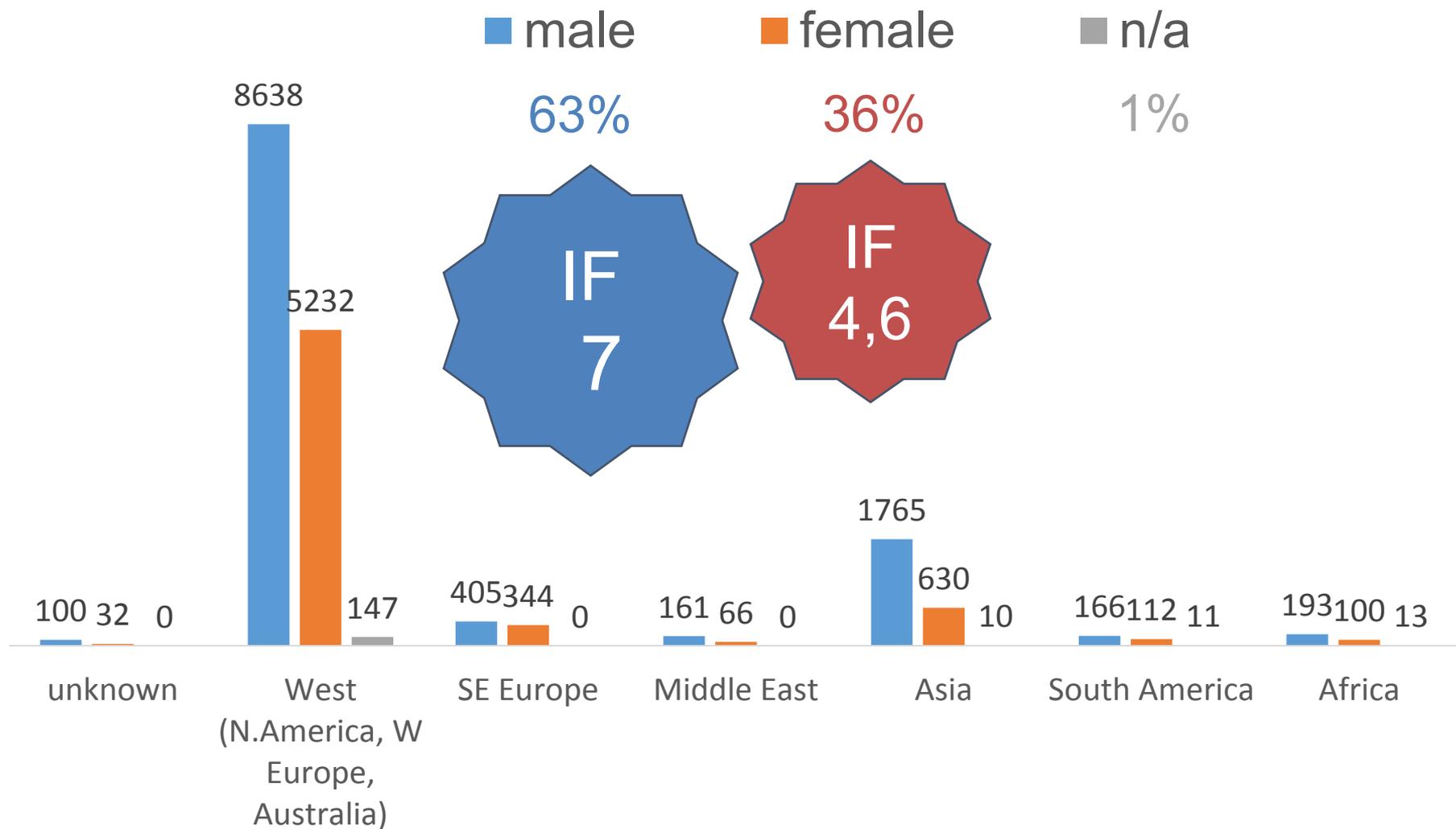
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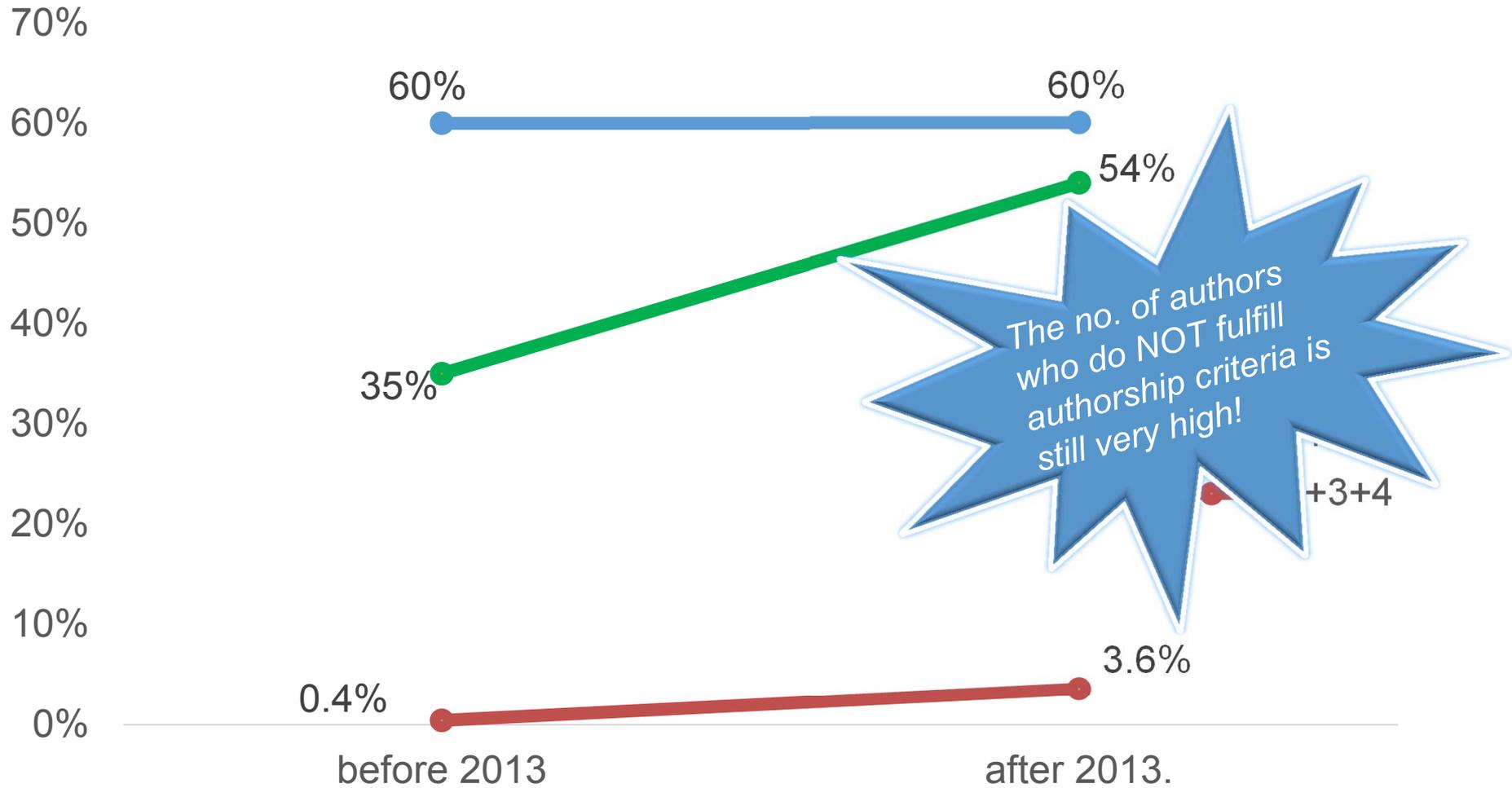
Acknowledgments:
YES 1,421 (68%)
More often in general med. journals

Conflict of interest:
NO 16,752 (92%)
YES 955 (5.3%)
maybe 418 (2.3%)

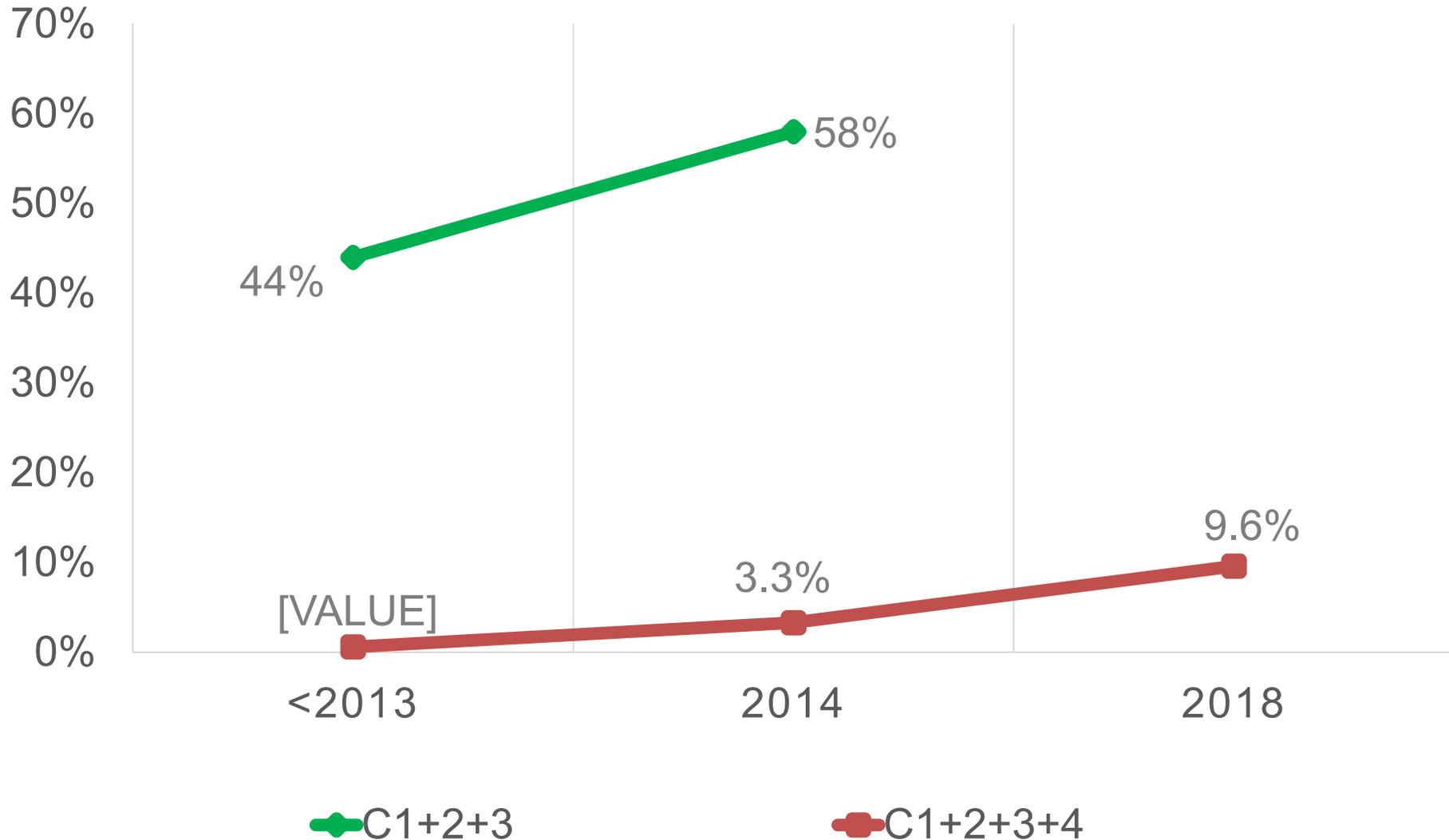
Gender/geographic distribution of authors



% of **authors** who fulfill ICMJE criteria
before and after introduction of 4th criterion in 2013



% of **articles** fulfilling all ICMJE criteria



CONCLUSIONS:

- The number of authors who do NOT fulfill authorship criteria is still very **HIGH**
- The acceptance of the latest ICMJE authorship criteria update is very **LOW** but showing an increasing trend
- The prevalence of authors fulfilling previously valid authorship criteria (C1+C2+C3) has **INCREASED** after the introduction of the 4th criterion in 2013.

may the 4th criterion be on your mind...



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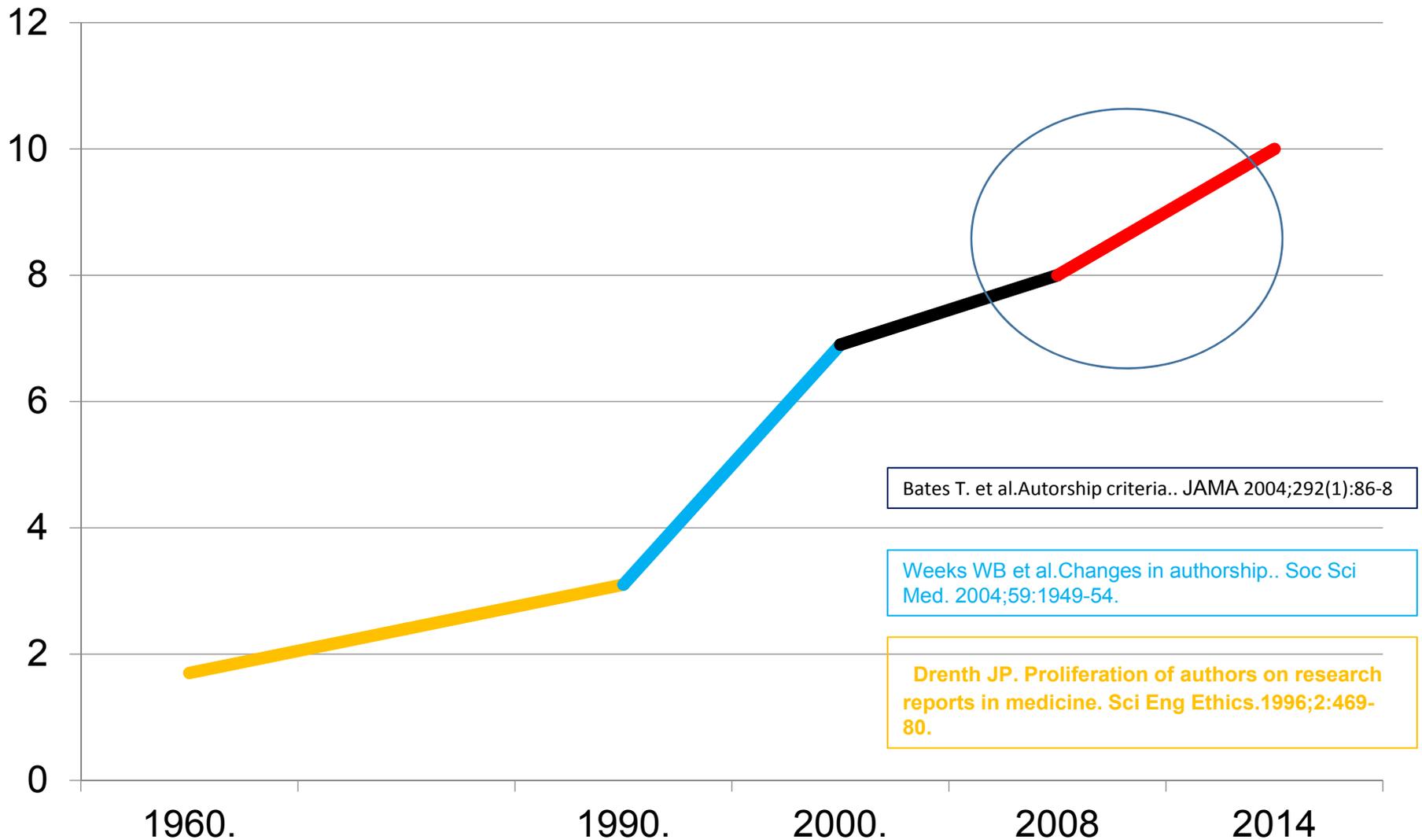
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Additional data

- The number of honorary authors (who did NOT fulfill ICMJE criteria but appear as authors) has not significantly changed:
- (13%) before and (11%) after for C1;
- (39%) before and (34%) after for C2.

Author number on the byline has increased from 8 ± 5 to 10 ± 8



Additional data

Journal criteria:

- IF > 1
- Follow ICMJE rules
- Web available
- Publicly disclosed author contributions

Article criteria:

- IF > 1
- Publicly disclosed author contributions
- original research reports
- 2 or more authors

Unit for analysing is the article.