



Sex and Gender Equity in Research (SAGER) guidelines

by the EASE Gender Policy Committee

Shirin Heidari

Integrating gender dimension in study design

Berlin, European Gender Summit

7 November 2015

MIND THE GENDER GAP

Despite improvements, female scientists continue to face discrimination, unequal pay and funding disparities.

BY HELEN SHEN

22 | NATURE | VOL 495 | 7 MARCH 2013

Sex bias in trials and treatment must end

Gender inequalities in biomedical research are undermining patient care. In the first of three related pieces, **Alison M. Kim**, **Candace M. Tingen** and **Teresa K. Woodruff** call on journals, funding agencies and researchers to give women parity with men, in studies and in the clinic.

NATURE | Vol 465 | 10 June 2010

“If working with only one sex or gender, then specify that, and explain why.”

The Lancet encourages researchers...to plan to analyse data by sex, not only when known to be scientifically appropriate, but also as a matter of routine.”

See also page 22

Evaluate gender equality in journals

The European Association of Science Editors established a gender policy committee last year to develop a set of standards for adoption by scientific journals. As co-chairs of the committee, our first step is to invite science editors to contribute to a survey of gender-equality policies in their journals (see go.nature.com/wor7ks; survey closes on 10 April).

In this survey, we ask editors for their views on considering sex and gender in experimental design and data analysis, and on presenting data that are broken down by sex. Information is also requested on gender balance on its promotion among editorial staff, editorial boards and peer reviewers.

Our hope is that all journals will eventually follow *Nature's* example in promoting gender equality in science (see www.nature.com/women).

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7 MARCH 2013 | VOL 495 | NATURE | 47

www.nature.com/nature

Vol 465 | Issue no. 7299 | 10 June

Putting gender on the agenda

Biomedical research continues to use many more male subjects than females in both animal studies and human clinical trials. The unintended effect is to short-change women's health care.

EMBO reports | VOL 13 | NO 7 | 2012

COMMENTARY

Open Access

Gender-sensitive reporting in medical research

Heidari *et al.* *Journal of the International AIDS Society* 2012, **15**:11

<http://www.jiasociety.org/content/15/1/11>

nature

Nature's sexism

The editors of this publication need to improve how we reflect women's contributions to science.

For this, we must inject an extra loop into our thinking.

Male and female cells can behave differently — it is in journals and funders took this seriously, says EH

Cell sex matters

1 AUGUST 2013 | VOL 500 | NATURE | 23

chers,



Long-term consequences



U.S. Food and Drug Administration
Protecting and Promoting *Your Health*

Drug Safety Communications

“Women appear to be more susceptible to this risk because they eliminate zolpidem from their bodies more slowly than men. ... FDA has informed the manufacturers that the recommended dose of zolpidem for women should be lowered from 10 mg to 5 mg for immediate-release products (Ambien, Edluar, and Zolpimist) and from 12.5 mg to 6.25 mg for extended-release products (Ambien CR).”

Male Scent May Compromise Biomedical Studies

or a female experimenter was present. “We were stunned by the results,” he says. The rodents showed significantly fewer signs of pain (an average of a 36% lower score on the grimace scale) when a male researcher was in the room than when a female researcher—or no researcher at all—was there.



What's that smell? The presence of a male scientist can influence research results.

More data...

in various scientific disciplines

PROPOSED TOPICS

- 1 Hazardous substances for risk groups working in laboratories
- 2 Subjective effects on the quality of laboratory techniques
- 3 Drinking water indicators limits
- 4 Differential absorption of substances from drinking water (depending on the target organism)
- 5 Different absorption of compound selected from the drinking water (e.g. calcium, copper, lead, mercury etc.).
- 6 Endocrine disruptors

CONCLUSION

- **Chemistry** is a scientific discipline that **affects nearly all fields of everyday human activities**. Therefore it is necessary to **encourage researchers to think about sex/gender analysis** as an innovative part of research. During the project, we often met with resistance, including gender dimension in research. Therefore we decided to try and point out that specific science topics researched at UCT can be broadened by the gender aspect via the JH Award. We want for the employees and students **to find their own relevant integration of gender into research**.

Gender analysis as a part of research works
at the University of Chemistry and Technology, Prague, Czech Republic

Gender Sensitivity in Computer Science Lessons

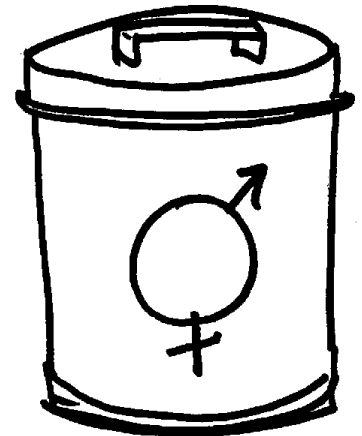
Martine Herpers, Anika Steppacher



Waste in research due to lack of sex/gender reporting

- RCTs receiving US federal funding published in nine prominent medical journals in 2009:

75% of the studies did not report any outcomes by sex



Source: Geller et al. J Women's health 2011



Are we turning a blind eye to Gender Blind Reporting?

Gender blind reporting is common and is a waste of research

- Sex of subjects are **not reported**
- Sex of subjects are reported but **data are not** presented **dissaggregated by sex**
- **Analysis ignores** any potential sex/gender differences and data are presented as if data are of general applicability: ***Overgeneralization***

* Nieuwenhoven and Klinge, AbstractScientific Excellence in Applying Sex- and Gender-Sensitive Methods in Biomedical and Health Research Journal of Women's Health 2010

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European
Association of
Science
Editors

EASE

Established in 2012 in recognition of the gender bias in science and science communication and the need to improve sex- and gender-sensitive reporting in science

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EASE Gender Policy Committee

Established by EASE Council in June 2012

Chairs: [Shirin Heidari](#) & [Thomas Babor](#)

Members: [Mirjam Curno](#), [Paola De Castro](#), [Ravi Murugesan](#), [Ana Marusic](#), [Paul Osborn](#), [Petter Oscarson](#), [Ines Steffens](#), [Kerstin Stenius](#), [Chris Sterken](#), [Cara Tannenbaum](#), [Sera Tort](#).

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EASE Gender Policy Committee

Vision

Greater gender balance in science and publishing practices for enhanced quality, diversity and transparency, for science to remain at the forefront of innovation.

Mission

To advance sex/gender reporting and gender balance in editorial management on a global level, and across disciplines.



Evaluate gender equality in journals

The European Association of Science Editors established a gender policy committee last year to develop a set of standards for adoption by scientific journals. As co-chairs of the committee, our first step is to invite science editors to contribute to a survey of gender-equality policies in their journals (see go.nature.com/wor7ks; survey closes on 10 April).

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Shirin Heidari Journal of the International AIDS Society, Geneva, Switzerland.

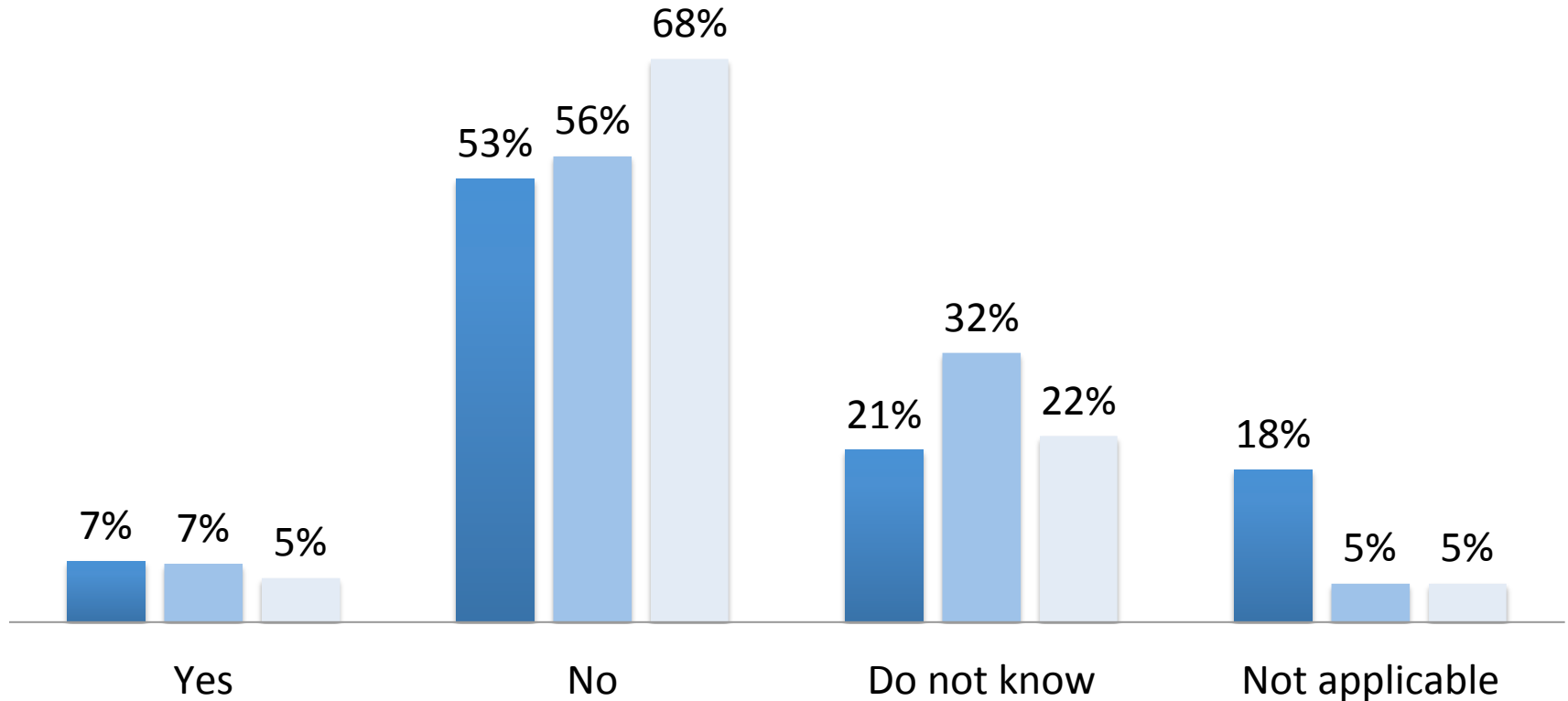
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Tom Babor University of Connecticut School of Medicine, Farmington, Connecticut, USA.

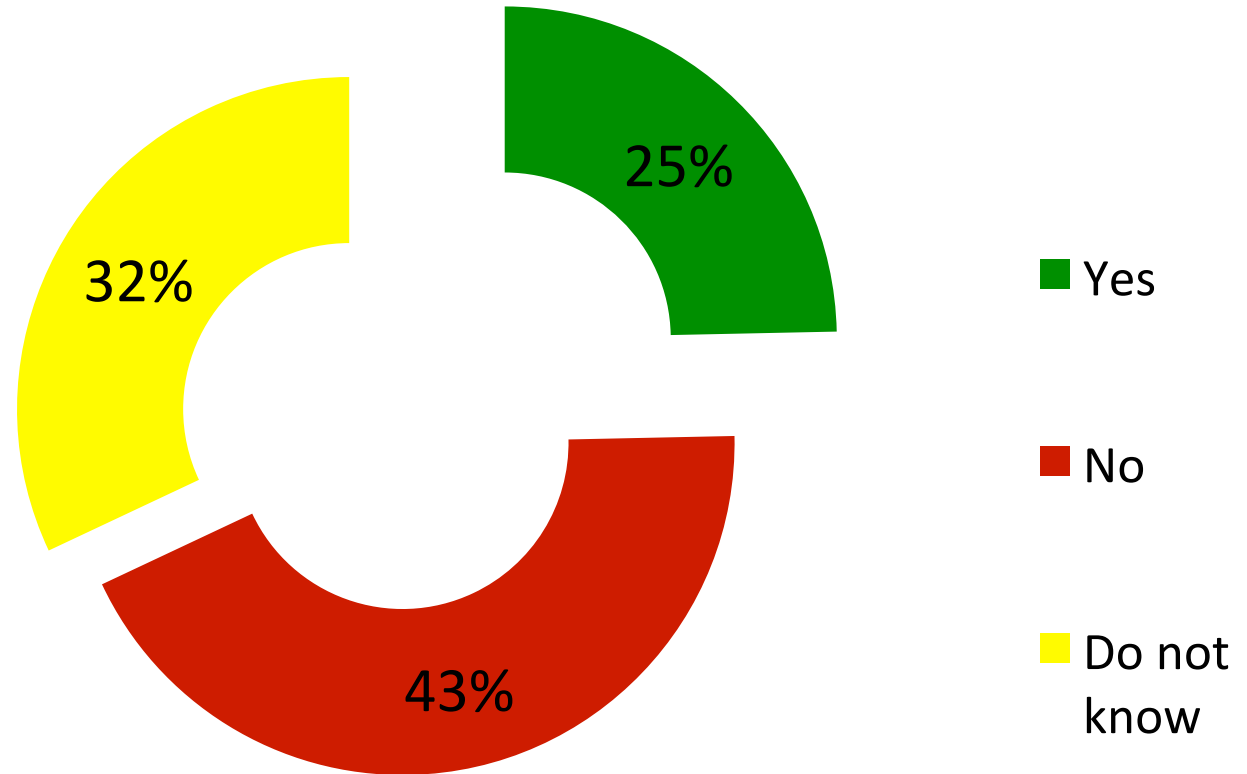
Survey results: overview of existing gender policies

- Instructions for Authors
- Composition of editorial staff/boards
- Pool of peer reviewers

Only 7 journals indicated that they had one or more sex/gender policies out of 661 unique journals!



Question: Do you think inclusion of data disaggregated by sex should be included in instructions for authors as a matter of routine across all journals/publishers?



A majority (75%) are unwilling or unsure to introduce sex and gender considerations as requirements in Instructions to Authors.




CIHR policy 2010

Are sex (biological) considerations taken into account in this study?*

Are gender (socio-cultural) considerations taken into account in this study?*

If YES please describe how sex and/or gender considerations will be considered in your research design. *

If NO please explain why sex and/or gender are not applicable in your research design.*

(2000 character limit) 

In 2010, 75% of researchers said NO to sex and No to gender

Johnson et al PLOS 2014

SAGER guidelines

S
A
G
E
R

Sex

And

Gender

Equity in

Research

Promote **sex/gender reporting** on a **global** level, and **across disciplines**, in scientific communication

Establish a **methodological framework** for reporting sex and gender differences (or similarities) targeting **authors and editors**



Sex and Gender Equity in Research (SAGER) reporting guidelines

Modus operandi

- **Keyword searches** to identify journals that had specific policies on sex and gender.
- Scanned **websites** of journals that have an explicit sex/gender focus
- Reviewed **policies of peer-reviewed**
- Consulted journal **articles** and reports, and experts
- **Synthesized** current policies and recommendations into reporting guidelines

SAGER Recommendation # 1

Terminology

Exercise care in the terminology used to describe research methods and explain results in order to **avoid confusing sex with gender**

SAGER Recommendation # 2

Title and Abstract

If only one sex is included in the study, the title as well as the abstract should specify the sex of animals or any cells, tissues, and other material derived from these, and the sex/gender of human participants



SAGER Recommendation # 3

Introduction

Where appropriate, it should be reported if sex and/or gender differences *are expected*

SAGER Recommendation # 4

Methods

How sex and gender were taken into account *in* the *design* of the study should be clearly stated, including reporting of representation of males and females.

The *reasons for the exclusion* of males or females should be justified.

SAGER Recommendation # 5

Results

Data should be routinely presented **disaggregated** by sex. Where appropriate, meaningful sex/gender based **analyses** should be reported regardless of positive or negative outcome.

The **reasons for lack** of any gender analysis should be justified.

Recommendation # 6

Discussion

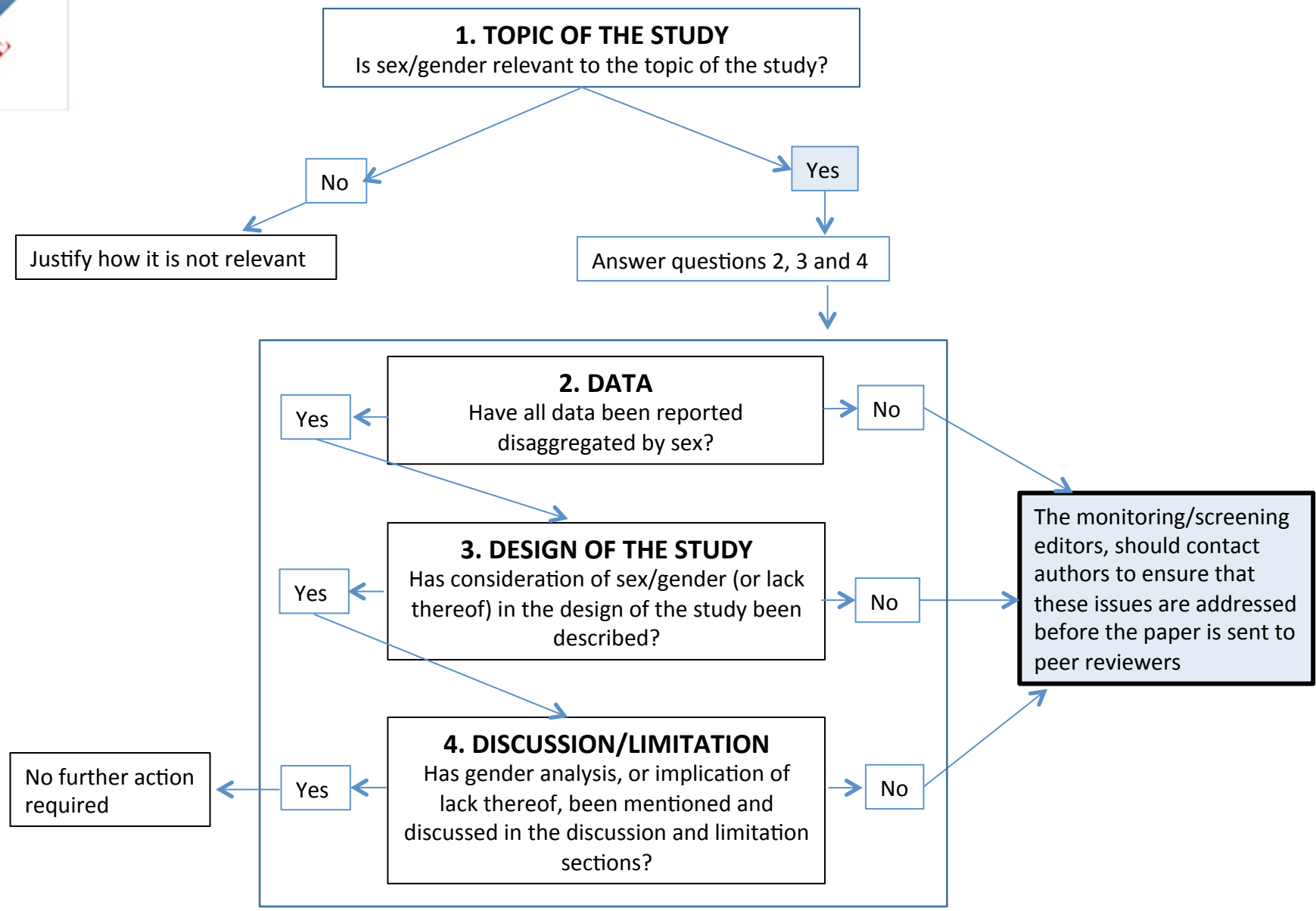
The implications of sex/gender analyses should be discussed. And it should be indicated whether lack of such analyses could have affected the **results**.

Recommended Actions for Editors to Implement Reporting Policies

1. Adopt the guidelines as a formal policy in **Instructions to Authors.**
2. **Screen initial submissions** to determine whether sex/gender is relevant to the topic of the study; if so, determine whether the issue has been addressed adequately enough to proceed with peer-review
3. Encourage **peer reviewers** to consider journal's sex/gender policy in the evaluation of manuscripts.
4. **Train editorial staff** on the importance of sex/gender sensitive reporting



SAGER flowchart guiding editors' initial screening of submitted manuscripts



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SAGER (Sex and Gender Equity in Research)

The SAGER (Sex and Gender Equity in Research) is a guideline to encourage a more systematic approach to the reporting of sex and gender in research across disciplines, promoted by the EASE gender policy committee.

- Website: <http://www.ease.org.uk/about-us/organisation-and-administration/gender-policy-committee>

Dissemination and implementation

Objective 1:**Identifying Sex and Gender-Related Variables**

Which of the following is a sex-related variable:



- A Adult height and weight
- B Muscle strength
- C Lean body mass, affecting drug distribution in the body
- D Peak bone mineral density
- E All of the above

Working with partners

CIHR of Gender and Health

Capacity building and training

Table 1. Mandatory sex and gender questions.

1	Are sex (biological) considerations taken into account in this study? Yes/No
2	Are gender (socio-cultural) considerations taken into account in this study? Yes/No
3	IF YES please describe how sex and/or gender considerations will be considered in your research design. (2000 character limit)
4	IF NO please explain why sex and/or gender considerations are not applicable in your research design. (2000 character limit)

doi:10.1371/journal.pone.0099900.t001

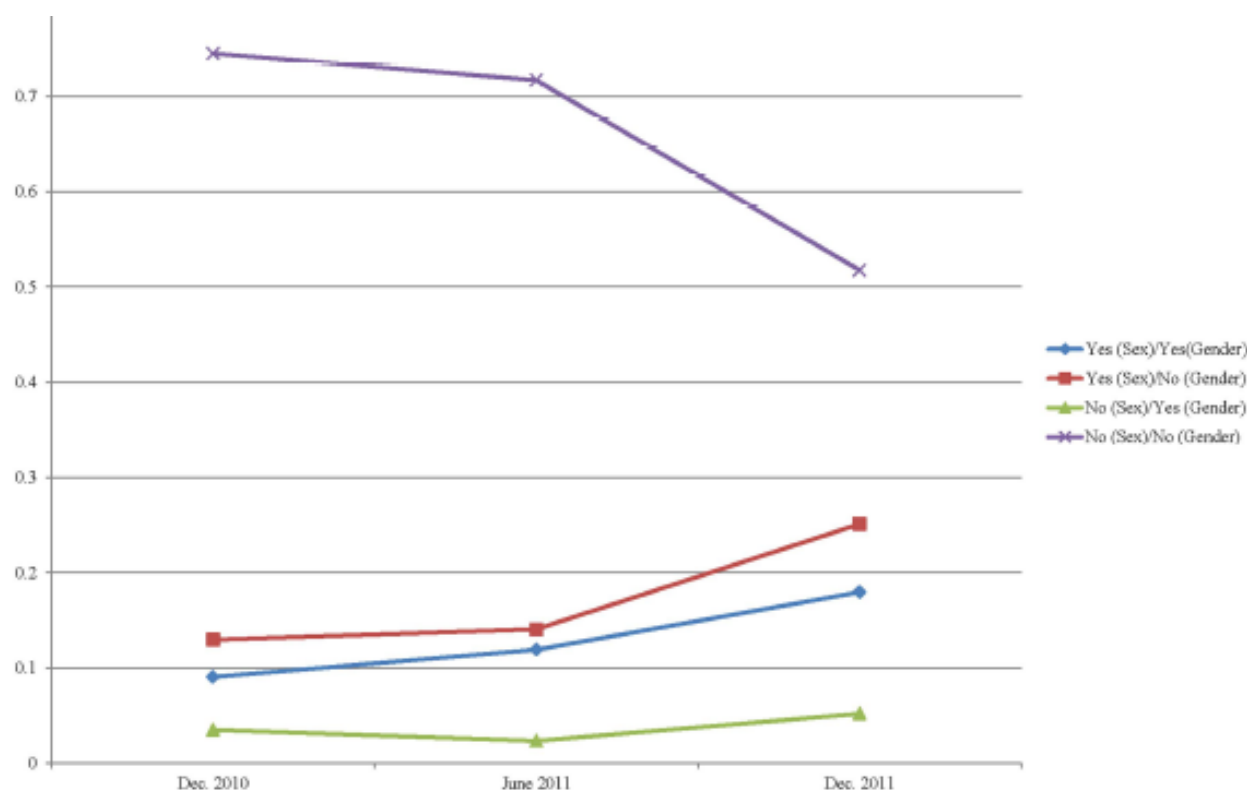
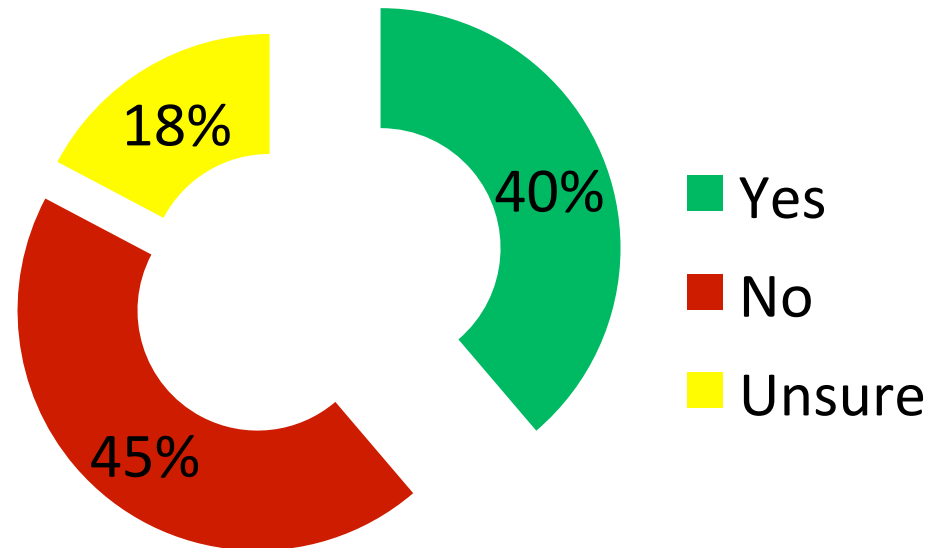


Figure 1. Percentage of responses to sex and gender items over three competitions. The proportion of respondents indicating that they did not consider sex or gender declined over time, while the proportion of respondents indicating that they considered sex and/or gender showed a corresponding increase. The addition of a requirement that respondents answering “no” provide a rationale for doing so appeared to correlate with an increase in the number of respondents answering in the affirmative.
doi:10.1371/journal.pone.0099900.g001

SAGER – phase II

- Gender balance among editors, editorial boards, and reviewers

Do you think journals should have a gender policy concerning the composition of the editorial staff and boards?



Thank you

Acknowledgement

Gender Policy Committee members
Experts and partners

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Name and email addresses
of EASE GPC members on
EASE website

Vive la Différence



8/6

www.betsystreeter.com