

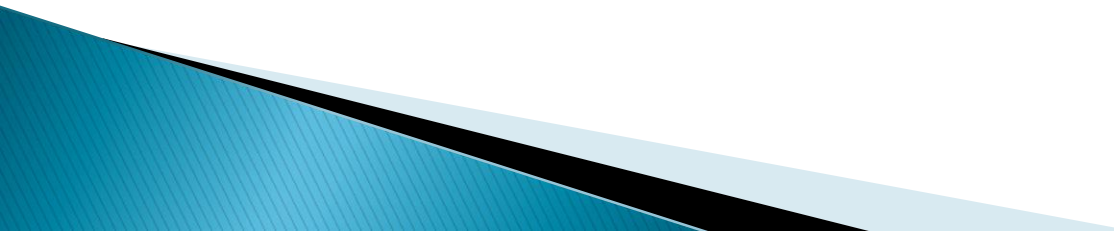
Canadian Journal  
of Public Health  
Revue canadienne  
de santé publique



# Peer reviewing quantitative manuscripts

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# Objectives of Workshop

- ▶ Overview of peer-review process at CJPH
  - ▶ Elements of a good peer review for quantitative manuscripts
  - ▶ Group discussion of a real peer-review
  - ▶ Groups present primary issues identified from their peer review
  - ▶ Wrap-up
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# Article in the Guardian May 29, 2017: A monument was constructed in England to Commemorate Peer Review

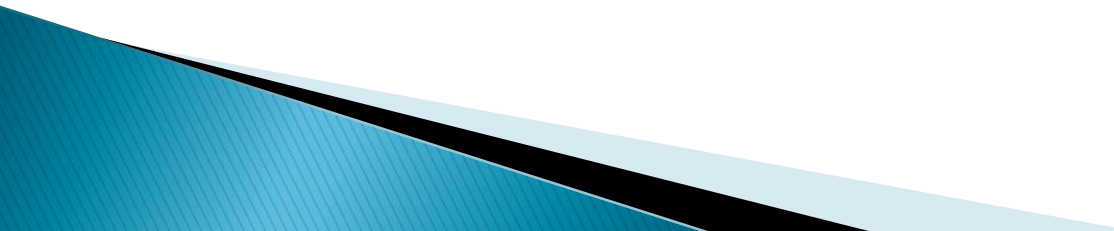


# Why should you do peer review for journals?

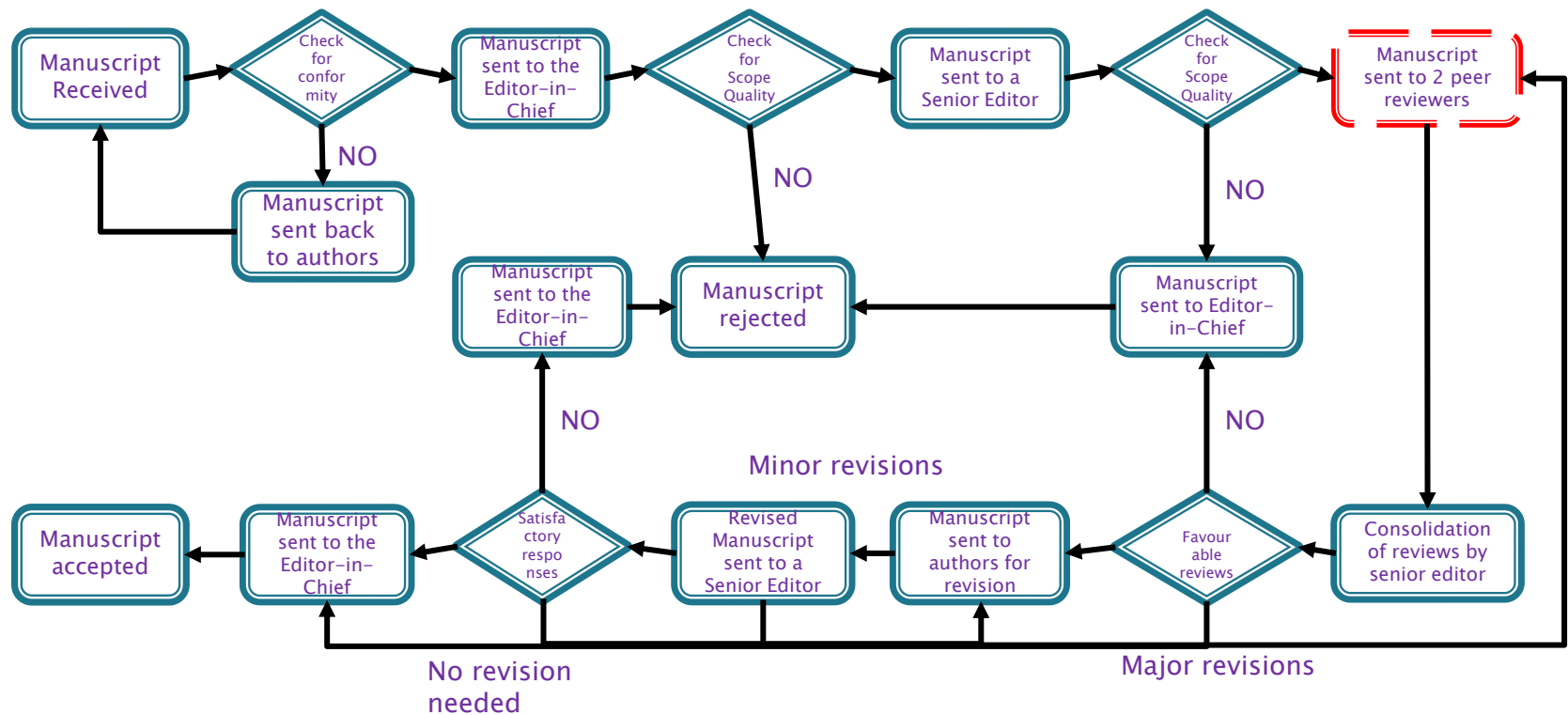
- ▶ Helps to ensure quality research is published!
  - ▶ Allows you to see new research before it is published....  
Although it is confidential
  - ▶ Prestige: you are being asked because you are considered an expert in the field
  - ▶ Responsibility: reciprocation for the fact that others are reviewing your papers
  - ▶ Career advancement: expectation in academia, and seen as a contribution
  - ▶ Contribution to science: the problem of predatory journals
- 




## What happens when an article is submitted to CJPH?

- ▶ The Editor-in-Chief reviews the abstract (and other parts of the manuscript if necessary) and decides whether it should be sent for peer review or not
    - About 25% of papers are sent for peer review
  - ▶ Manuscript is assigned to Senior Editor
  - ▶ Senior editor reviews manuscript and selects potential reviewers
    - Potential reviewers are selected based on their expertise and the manuscript topic
- 


# Manuscript Workflow



# Selecting Reviewers

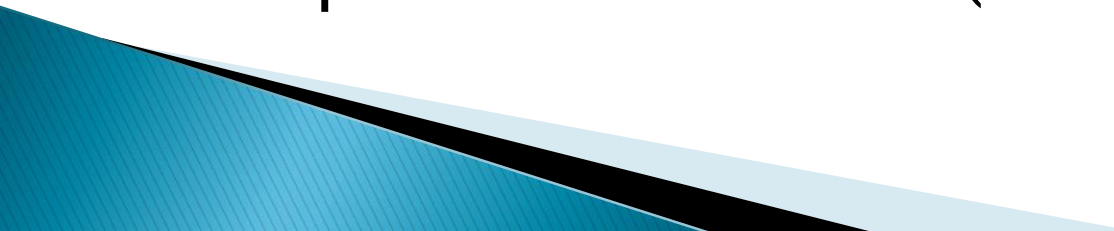
- ▶ Potential reviewers are selected from:
    - Database of reviewers with research interests/expertise noted
    - Colleagues with expertise in area
    - PubMed– to see who is publishing in the area
  - ▶ Two reviewers required for every manuscript
    - On average, about 5 review requests sent for every reviewer who agrees to review
  - ▶ Double-blind review:
    - Reviewer does not know who the author is
    - Author does not know who the reviewer is
- 

## When the reviews come in

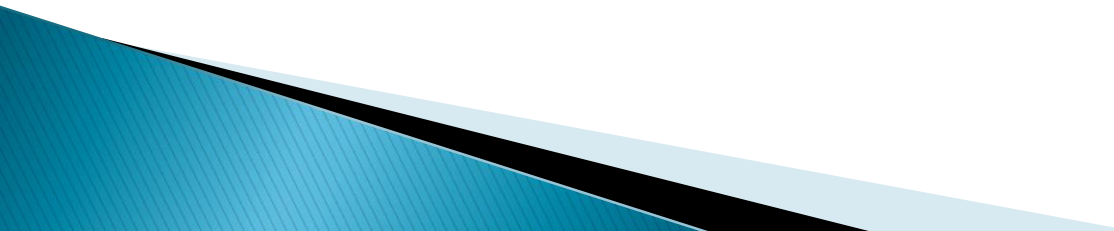
- ▶ Based on the peer reviews, the senior editor decides whether to recommend:
    - Accept manuscript (rarely the case without revisions)
    - Revise manuscript
    - Decline submission
  - ▶ Revise Manuscript:
    - Reviews go to authors (along with any comments from editor)
    - Authors respond to reviewer comments and revised manuscript gets resubmitted, and process is repeated
- 



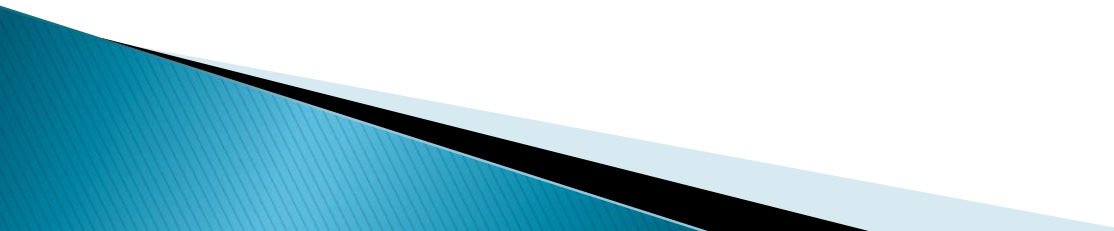
# When you are asked to review an article, you need to ask yourself...

- ▶ Do you have the necessary expertise?
  - ▶ Do you have a potential conflict of interest?
    - Usually you will not if double-blind review is used
  - ▶ Can you submit the review within the requested deadline?
    - If not, requests for extensions are generally granted
  - ▶ Respond to invitation (accept or decline)
- 

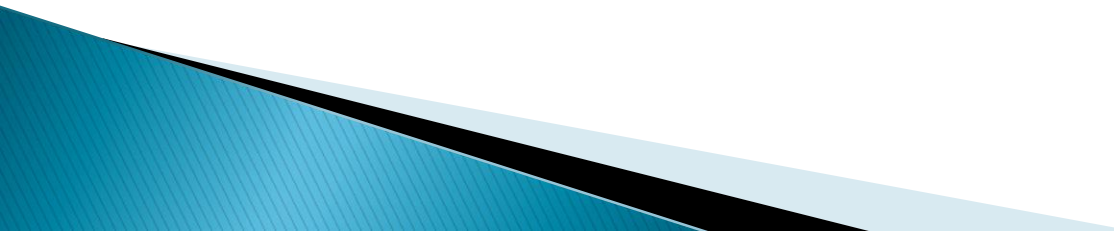
# CJPH review form

- ▶ Questions pertain to all aspects of the manuscript (e.g., “Is the research question or hypothesis clearly stated?”)
  - ▶ For each question, you are asked to check:
    - Yes
    - Improvements required
    - No
  - ▶ Reviewers are then asked to provide detailed comments on the paper to support the answers to questions
- 

# Peer Review: General comments

- ▶ Provide a short summary of the manuscript
  - ▶ Include comments about strengths and weaknesses
  - ▶ Does the question have merit? Will it add important information to what is already known on the topic?
  - ▶ Determine whether revisions (within reason) can improve the manuscript and make it worthy of publication. If not, it probably is not ready for publication at this time.
- 

# A good review should be:

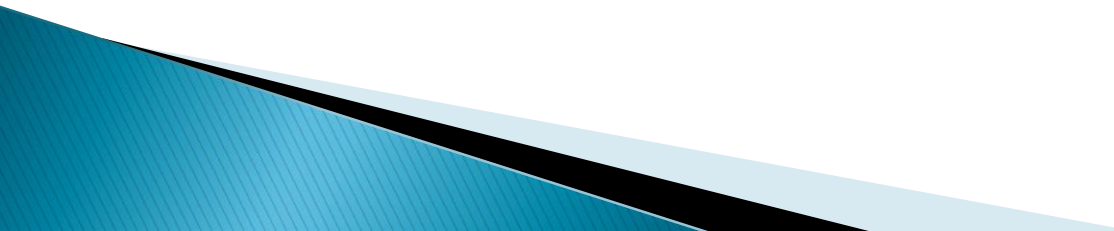
- ▶ Focused:
    - Key questions should be asked in every review (e.g., Are the results novel? Are the findings scientifically valid? Is the paper written in a way that is easy to follow?)
  - ▶ Constructive:
    - Identify problems, with clear indication of what the problem is, and possible solution
  - ▶ Structured:
    - Major/minor points, list point by point so it is easy for authors to respond
  - ▶ Precise
    - Helpful to use line and page numbers to give specific instances of where there are errors or where improvements are needed
  - ▶ Polite and Professional
    - OK to be critical, but do so in a balanced and polite way
- 

# Peer Review: Specific questions to think about

## ▶ Title and Abstract:

- Does the title accurately reflect the manuscript?
- Does the abstract reflect the major findings of the manuscript?
- Can the abstract stand alone? (Many readers will only look at an abstract)
- Is the conclusion supported by the data presented? Is the conclusion overstated?

## ▶ Introduction


- Does the introduction provide a brief background of the recent literature on the topic?
  - Does the introduction highlight the gaps/conflicts in what is known about the topic... and demonstrate the need for the research under review?
  - Does the introduction end with a statement of the research objective/aim?
- 

# Peer Review: Specific questions to think about

## ► Methods

- Are the methods appropriate for the question and are important details provided?
- Can the data that were collected answer the question?
- Are the exposure measures and outcomes adequately defined?
- Are the statistical analyses appropriate for the data/study design?
- Could the research be replicated by other researchers (e.g., is enough detail provided)?

## ► Ethical considerations

- Did the researchers receive REB approval? If not necessary, did researchers state this?
  - Was consent obtained (if required)?
  - Are research participants possibly identifiable?
- 

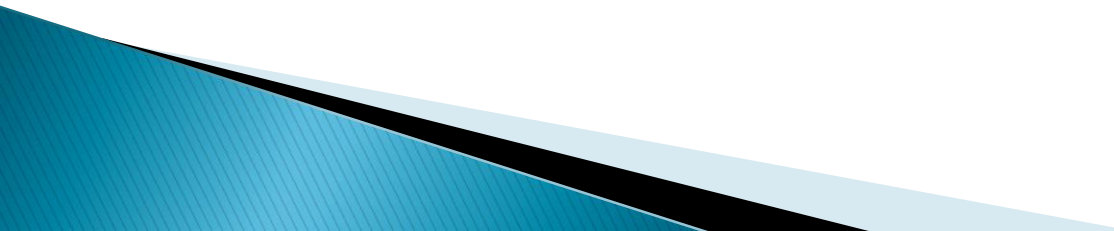


# Peer Review: Specific questions to think about

## ▶ Results

- Are the numbers of research participants clearly presented?
- Do the results stated in the text match what is in the Tables/Figures?
- Do the authors report on missing data and how it was handled?

## ▶ Discussion and Conclusions

- Are the results compared with previous research?
  - Are the public health/clinical implications noted?
  - Are limitations noted?
  - Are the conclusions supported by the data?
- 

# Common problem with peer review is lack of precision

Constructive comment:

“The authors stated that the dropout rate was 5%. However, the Figure shows 145 people started the smoking cessation program, but 104 completed it, suggesting that the dropout rate was actually 28%.”

Weak comment:

“The results are poorly presented.”



# Evaluating the manuscript readability

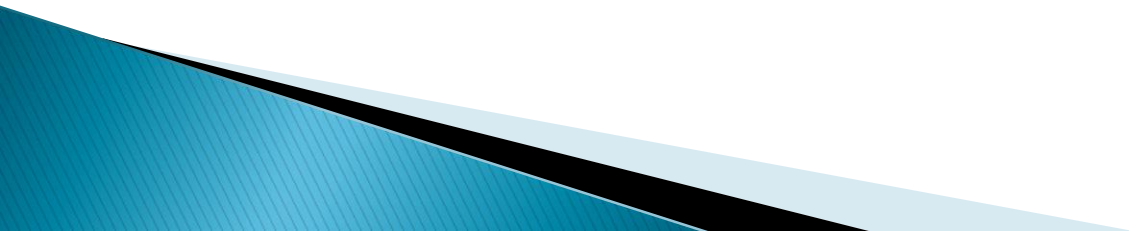
- ▶ Is the manuscript readable?
- ▶ Do sentences make sense, and are they easy to follow?
- ▶ Spelling/grammar problems?



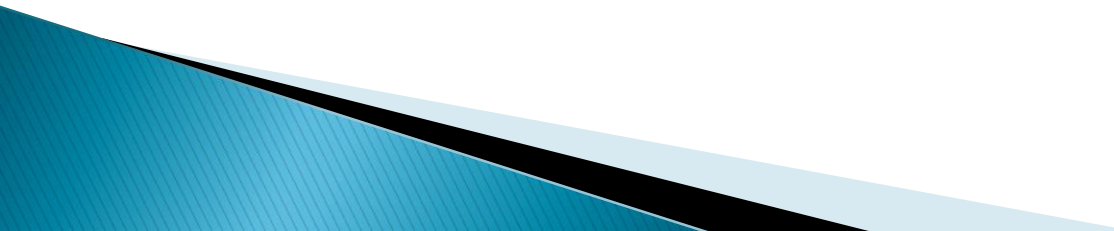
The reviewer does not need to fix everything, but can note that attention needs to be paid to these issues.

# Peer Review: What to do when the manuscript is excellent

- ▶ It is often more difficult to review an excellent paper than it is to review a weak paper
- ▶ Even though you don't have major criticisms, it is important to say what makes the manuscript strong



# Peer Review: General Tips

- ▶ Do not include comments to the author about whether the manuscript should be published
  - ▶ What you read is confidential until it is published
  - ▶ Your comments are being sent to your peers—you want to help them improve their manuscript, so comments should be constructive (and polite and professional)
  - ▶ Give reasons to support your comments
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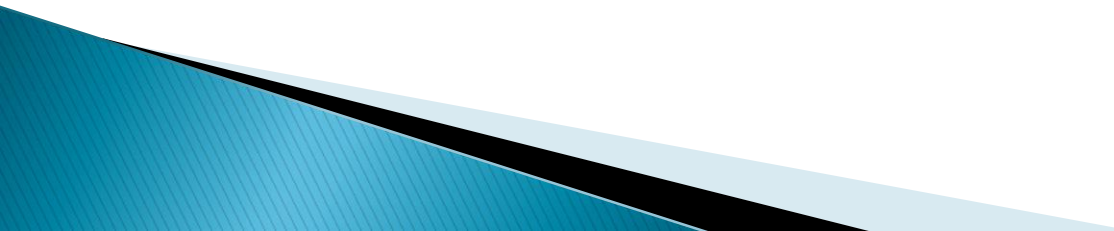
# Peer Review:

## Confidential note to editor

- ▶ You can let the editor know if you have serious concerns about some aspect of the manuscript
  - Fatal flaw
  - Issue with ethics
  - Suspected plagiarism



# Your task

- ▶ You have been invited to review a manuscript submitted to CJPH: “Correlates of accelerometer-assessed physical activity and sedentary time among adults with type 2 diabetes”
    - You will be given a copy of this manuscript
    - The authors have agreed that we can use it for demonstration purposes (revised manuscript has been published)
    - We will collect the manuscript at the end of the workshop
  - ▶ Assume you have the appropriate expertise and have accepted the assignment
  - ▶ Groups will discuss the review based on sections
- 

20 Minutes: Read the whole paper paying closer attention to the section your group is responsible for.

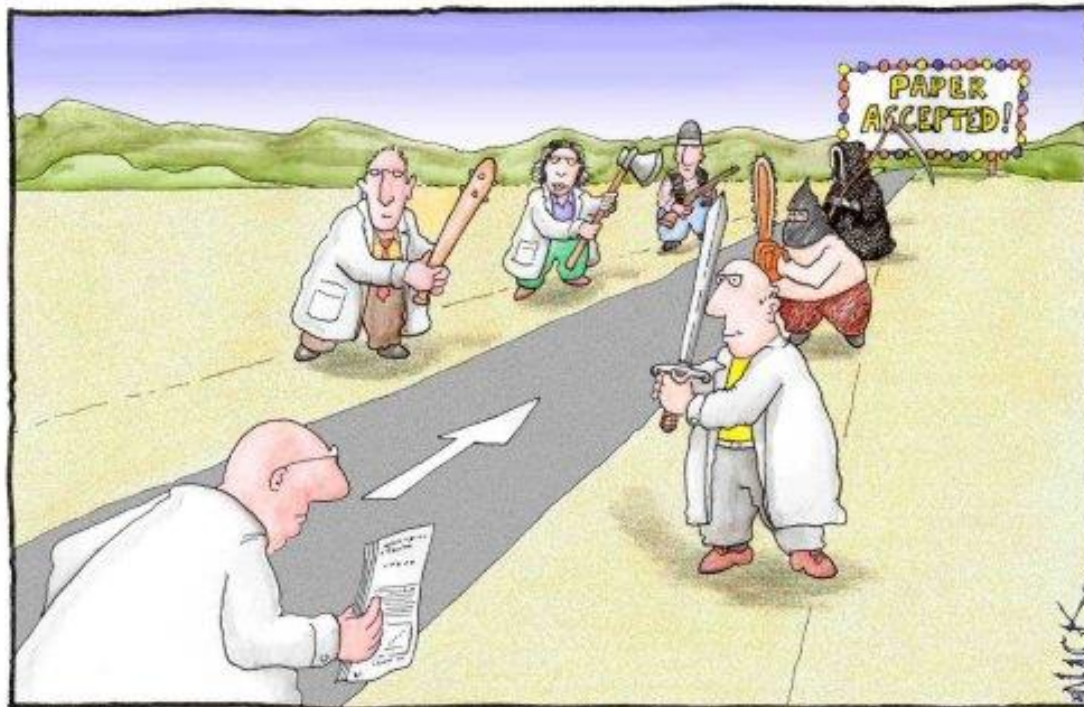
20 Minutes: Group discussion

- Strengths and weaknesses of the review (with regard to your section)?
- What did the reviewer miss?

20 Minutes: Plenary

- Questions and remarks
- 

# Questions?



Most scientists regarded the new streamlined peer-review process as 'quite an improvement.'