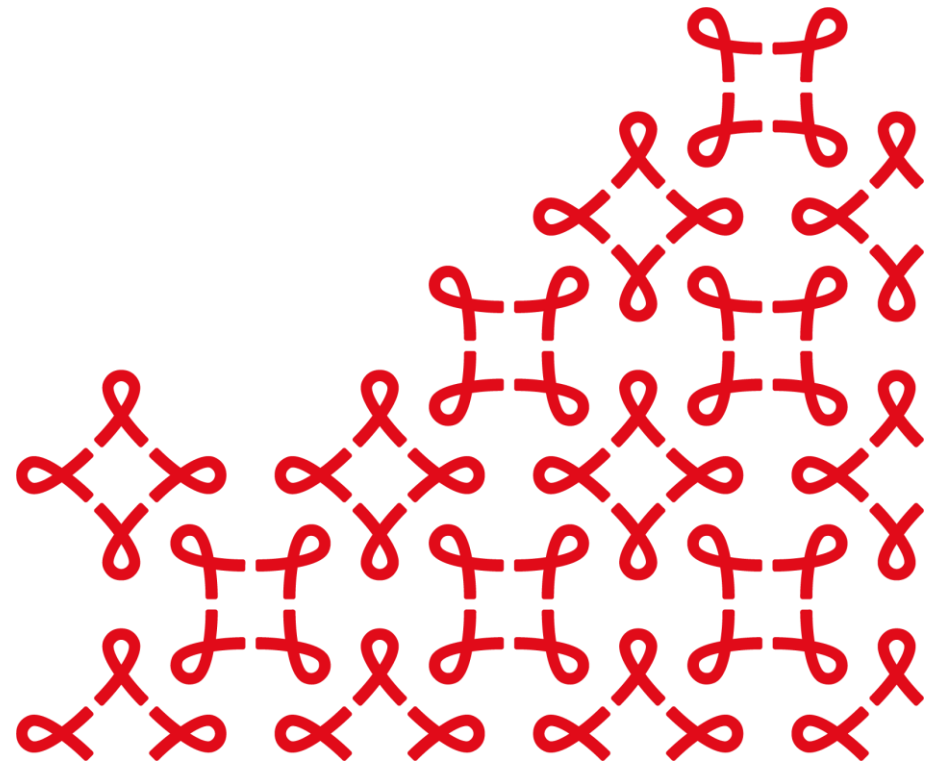


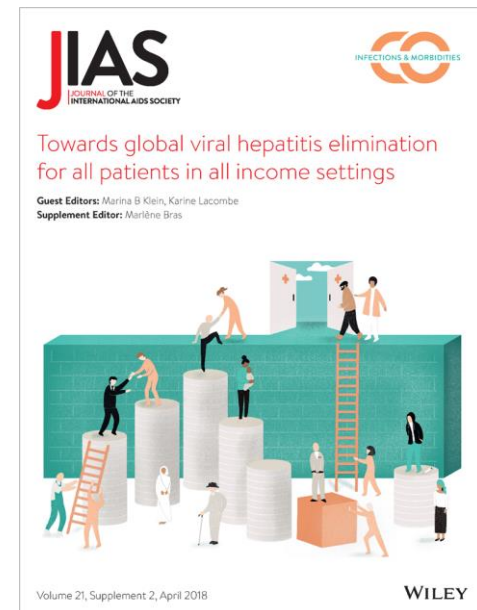
# How to write and submit a research manuscript

WEBINAR



Our mission and vision is to provide a platform for the dissemination of essential HIV research, to encourage submissions from low- and middle-income countries and to provide capacity building opportunities for less-experienced authors.

- Online
- Peer-reviewed
- Open access
- Impact factor: 5.192
- Indexed
- Multidisciplinary
- Skills building



# Agenda

Introduction

How to write a research manuscript

Choosing a journal and submitting a manuscript

Editorial decision making and common reasons for rejection

Responding to reviewers and revising a manuscript

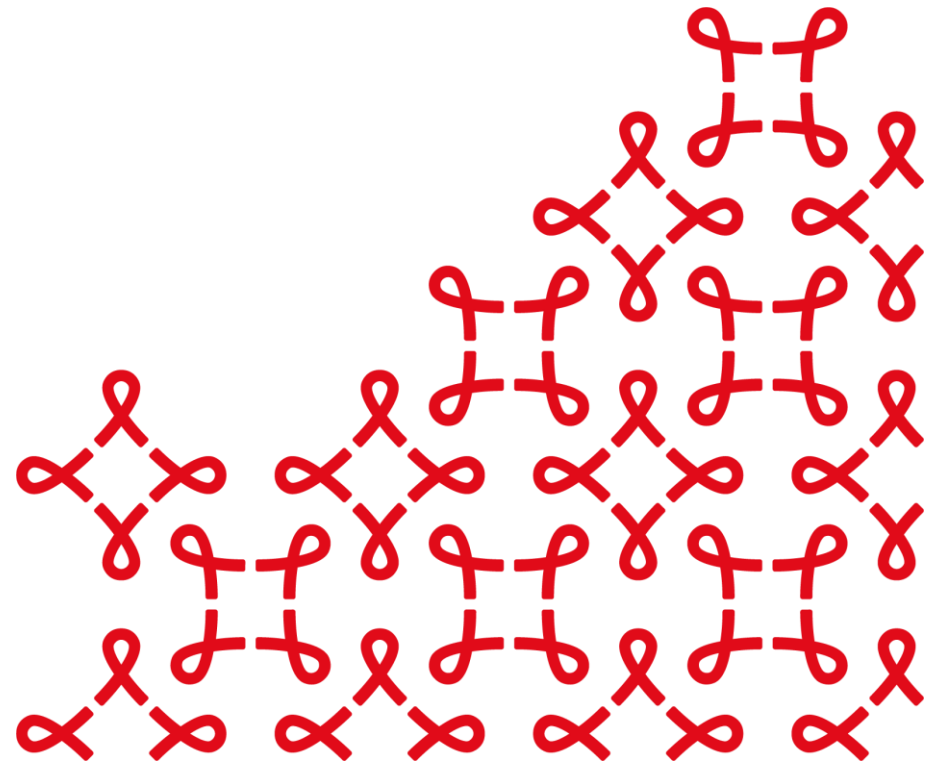
Publication ethics

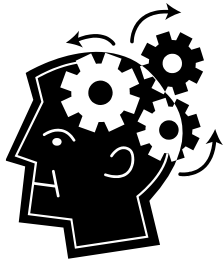
Q&A

From a scientific point of view –

Results that are **not** published  
mean the research did **not** take  
place

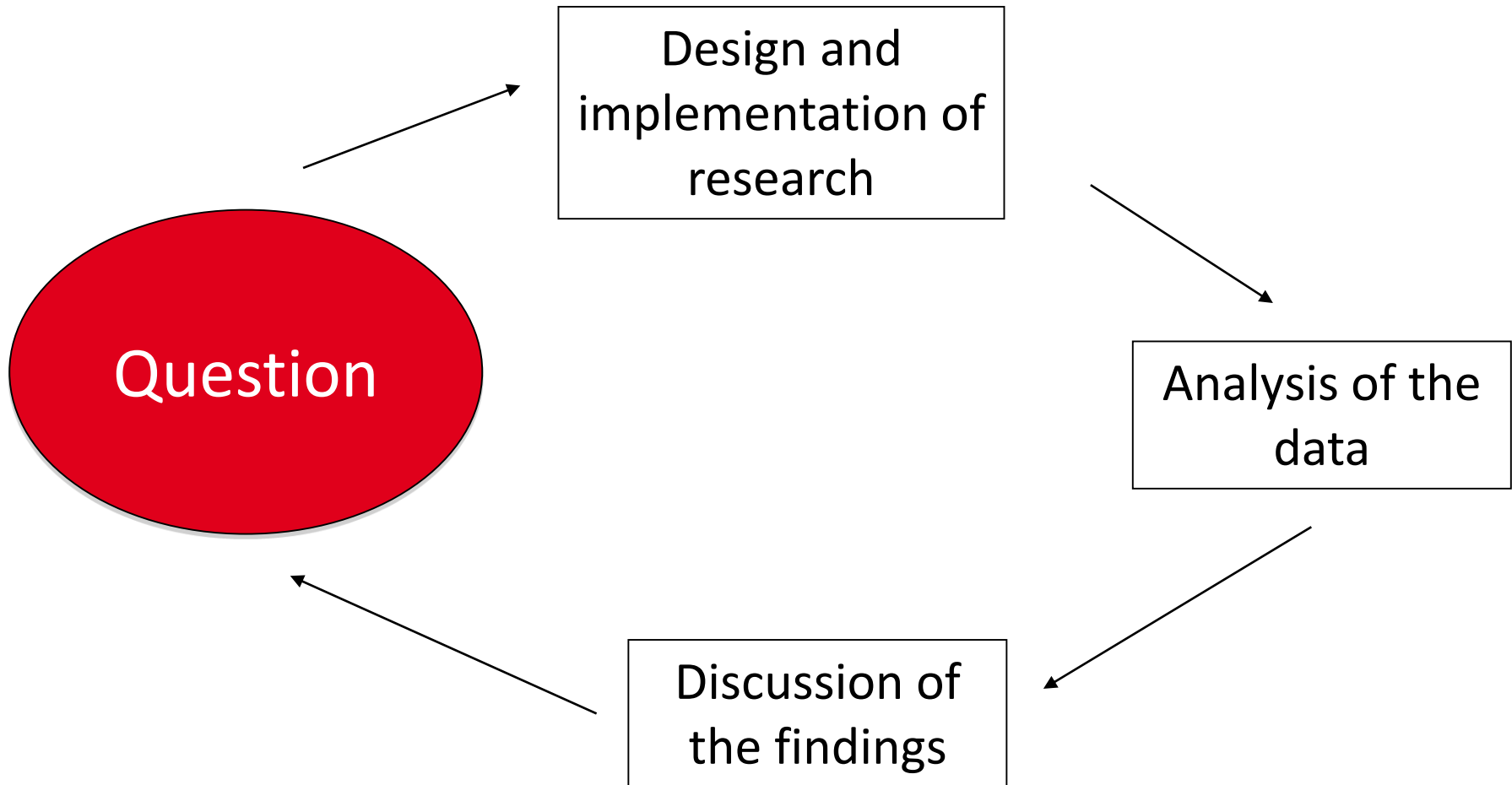
# How to write a research manuscript





What makes a good manuscript?

# It's all about the question ...



# The chain of research process

Puzzle > Literature review > Research question > Project design > Funding and ethical approval > Data collection > Data analysis > Data interpretation > Manuscript writing > Journal submission > Response to reviewers > Publication



# Manuscript structure (IMRaD)

Title/title page

Abstract

**I**ntroduction

**M**ethods and materials

**R**esults

Tables and Figures

**D**iscussion

References

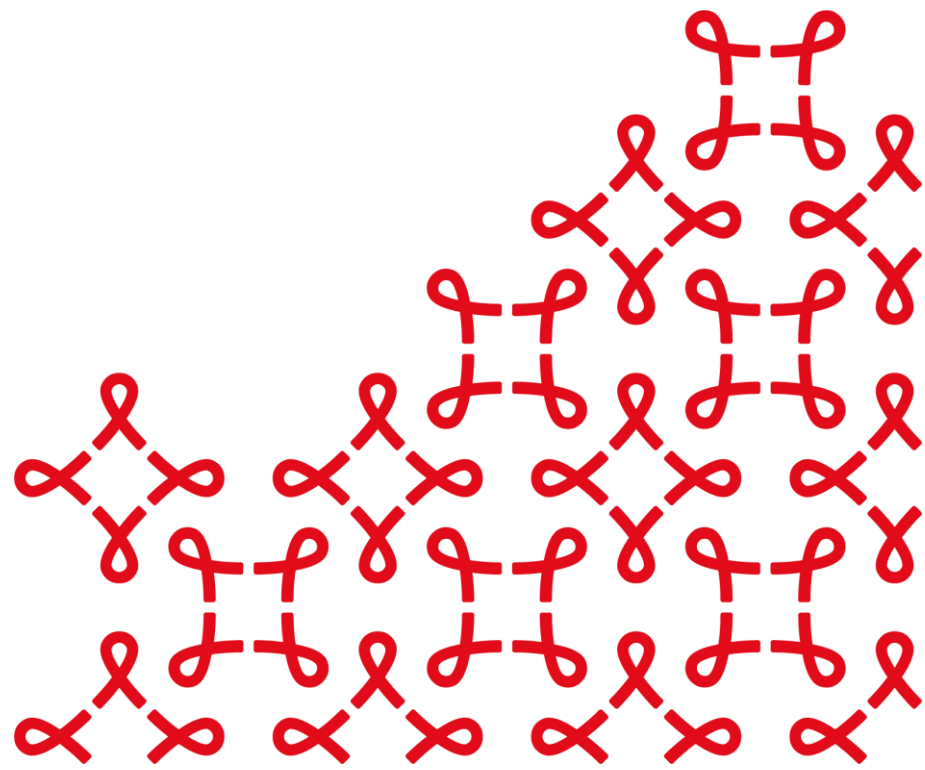
# Where to start?

- Order your thoughts and make our motivation clear
  - Have I done something new and interesting?
  - What problems did my study address?
  - How did my study address these?
  - What are my key findings?
  - What are the implications for research, practice, and policy?
- Methods – Results – Introduction – Discussion – (Abstract / Title)



What is the most important part of a manuscript?

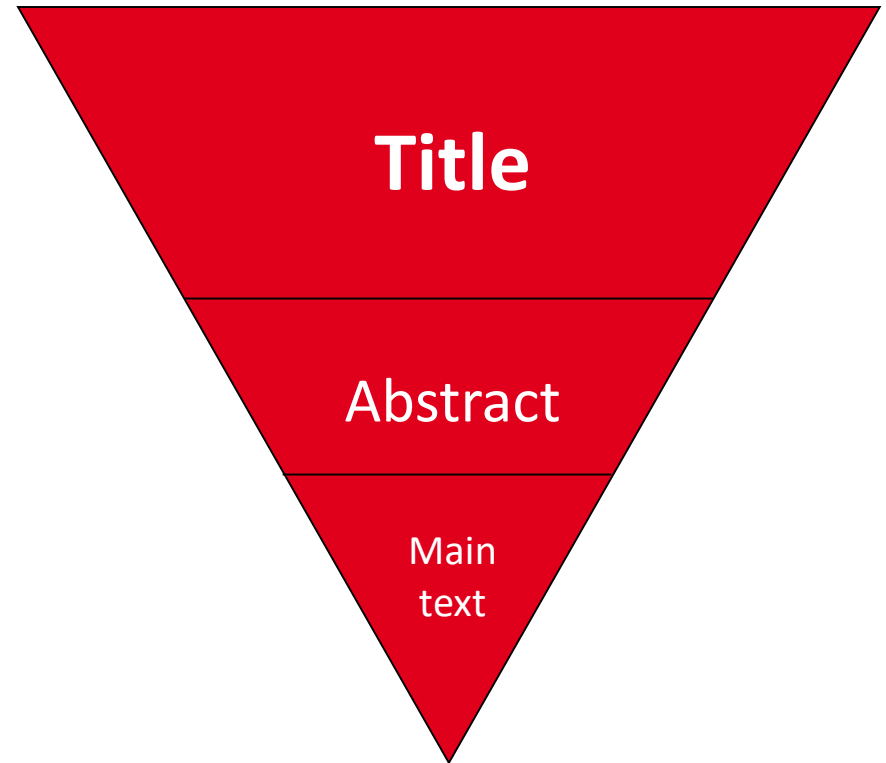
Title



# Title

The part most often read  
Often the **only** part read

Short  
Specific  
Informative  
Representative



The title is your mini-advertisement

# Title - Example

Is this a good title? What different types of information does this title contain?

Young people who inject drugs in India have high HIV incidence and behavioural risk: a cross-sectional study

Who?

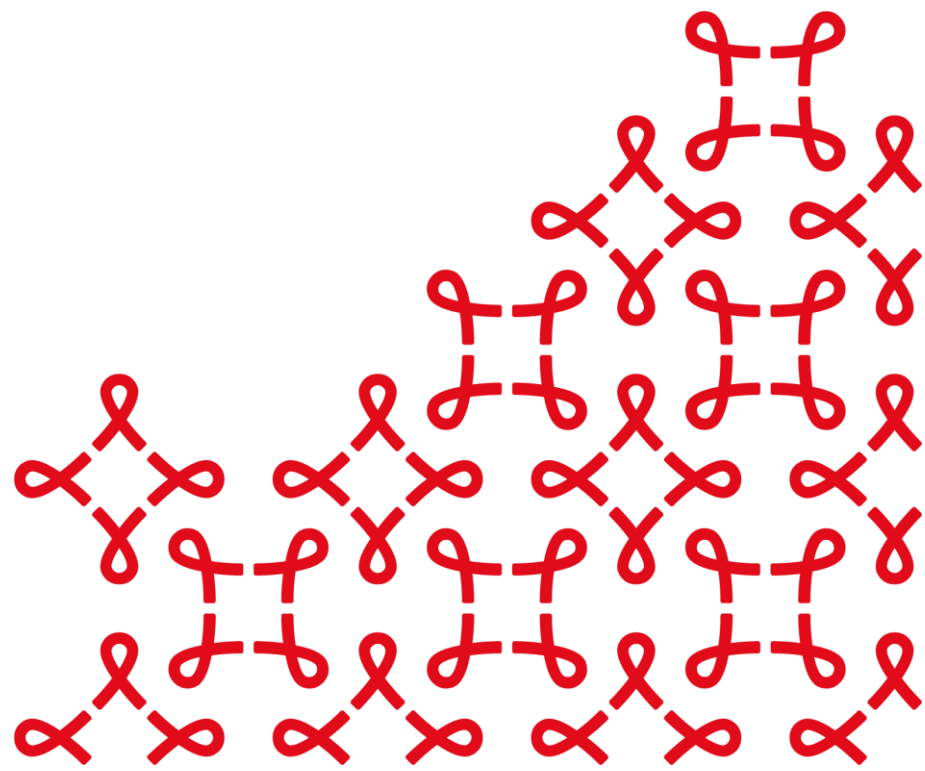
Where?

**Young people who inject drugs in India have high HIV incidence and behavioural risk: a cross-sectional study**

How?

What?

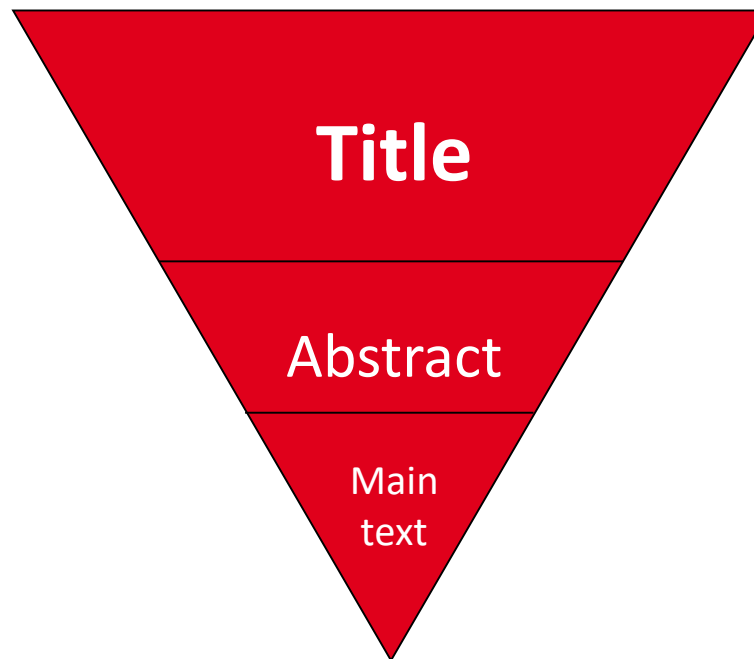
# Abstract





## What is an abstract?

The abstract includes all the important details and data from your research study so that it can serve as a stand-alone summary of the work.



# Abstract structure

**Introduction:** Description of issue, knowledge gap and aim.

**Methods:** Methodology used or approach taken.

**Results:** Findings and data from study.

**Conclusions:** Main outcomes and implications.

Main problems encountered by editors:

Inconsistent ☹️

Incomplete ☹️

# Abstract example

Trends in maternal deaths in HIV-infected women, on a background of changing HIV management guidelines in South Africa: 1997 to 2015

*Mnyani et al.*, JIAS 2017

## INTRODUCTION:

As work begins towards the Sustainable Development Goal target of **reducing the global maternal mortality ratio** (MMR) to less than 70 deaths per 100,000 live births by 2030, much needs to be done in ending preventable maternal deaths. After 1990, **South Africa experienced a reversal of gains in decreasing maternal mortality, with an increase in HIV-related maternal deaths**. In this study, **we assessed trends in maternal mortality in HIV-infected women**, on a background of an evolving HIV care programme.

## METHODS:

This was a **cross-sectional, retrospective record review** of maternal deaths in the obstetrics unit at Chris Hani Baragwanath Academic **Hospital, in Johannesburg, South Africa**, a referral hospital in a high HIV prevalence setting where the prevalence among pregnant women has plateaued around 29.0% for the past decade. **Trends in HIV diagnosis and management in pregnancy, and causes of maternal deaths in HIV-infected women were analysed over different time periods (1997 to 2003, 2004 to 2009, 2010 to 2012, and 2013 to 2015)** reflecting major guideline changes.

TOPIC

KNOWLEDGE GAP

AIM

TYPE OF STUDY

LOCATION

TIME FRAME

# Abstract example

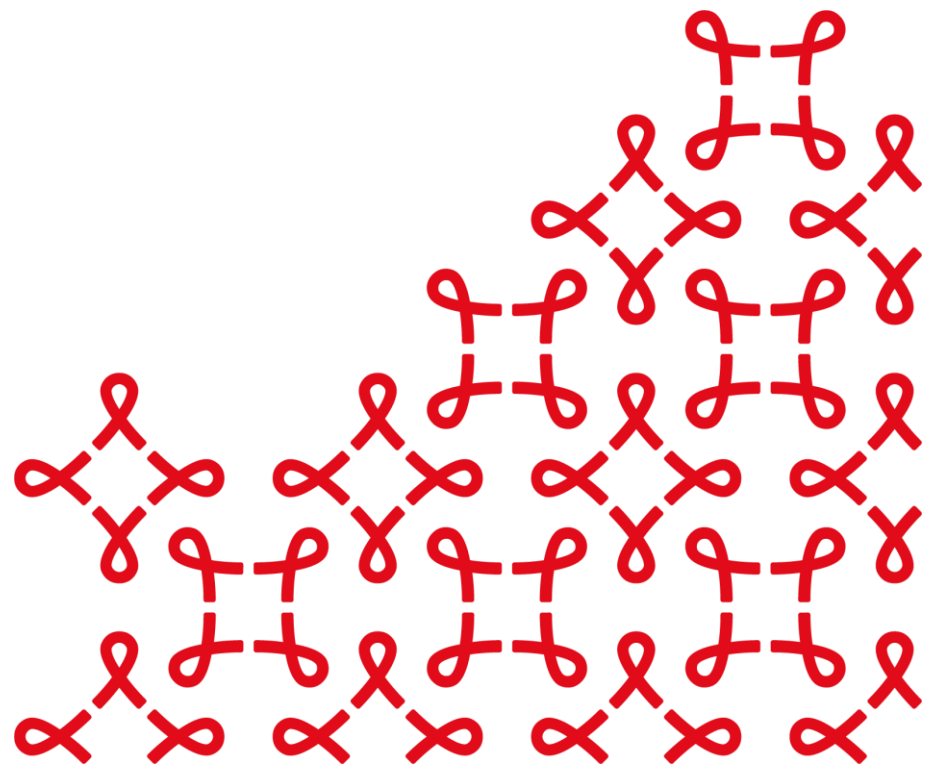
## RESULTS:

From January 1997 to December 2015, **there were 692 maternal deaths in the obstetrics unit. Of the 490 (70.8%) maternal deaths with a documented HIV status, 335 (68.4%) were HIV-infected. A Chi-squared test for trends showed that the institutional MMR (iMMR) in women known to be HIV-infected peaked in the period 2004 to 2009 at 380 (95% CI 319 to 446) per 100,000 live births, with a decline to 267 (95% CI 198 to 353) in 2013 to 2015,  $p = 0.049$ .** This decrease coincided with changes in the South African HIV management guidelines, mainly increased availability of antiretroviral therapy (ART). **Non-pregnancy related infections were the leading cause of death throughout the review period, accounting for 61.5% (206/335) of deaths. Only 23.3% (78/335) of the women who died were on ART at the time of death, this in the context of advanced immune suppression and an overall median CD4 count of 136 cells/ $\mu$ l (interquartile ranges (IQR) 45 to 301).**

## CONCLUSIONS:

In this 19-year review of maternal deaths in Johannesburg, South Africa, there was **evidence of a decrease in the iMMR among HIV-infected women**, but it remains unacceptably high. **Efforts to address drivers of mortality and barriers to accessing ART need to be accelerated** if we are to see substantial decreases in maternal mortality.

## Main text



# Introduction: What was your question?

	QUESTION
Background	What is the topic?
Context	What do we know? What previous research has been done?
Challenge	Which is the nature and importance of the knowledge gap?
Question	What was the aim of the study?

# Introduction - Example

**Despite recent declining incidence, tuberculosis (TB) is the leading cause of morbidity and mortality among people living with HIV.** In 2015, an estimated 1.2 million TB cases occurred among people living with HIV; TB accounted for a third of AIDS-related deaths. The World Health Organization (WHO), therefore, recommends strengthened TB/HIV service delivery based on key improvements in TB case finding and treatment, TB infection control, isoniazid preventive therapy (IPT) and early antiretroviral therapy (ART) initiation.

**The use of ART reduces the risk of HIV-associated TB by up to 67%. However, this reduction is time dependent:** TB incidence is highest in the first three months of ART and decreases gradually during the first two to three years on ART. The high TB incidence in early months on ART is at least partly due to unmasking of subclinical TB because of initial restoration of immune response. Early initiation of ART reduces mortality, morbidity and HIV-associated TB. However, long-term TB incidence among people on ART remains high: those on ART are several times more likely to get TB than non-HIV-infected populations in the same communities. Increasing numbers of HIV-infected people on ART may create populations with long-term heightened susceptibility to TB, potentially contributing significantly to the overall TB burden. **In Malawi, the proportion of co-infected TB/HIV patients registering for TB treatment while on ART increased from 52% (TB cases: 1526) in 2011 to 92% (TB cases: 1819) in 2017. The reasons for this dramatic shift in TB cases among those already on ART remain unclear.**

**Therefore, we explored (Q1) the overall trends of HIV-associated TB cases attributed to patients living with HIV who are on ART by year of TB treatment registration; (Q2) TB incidence trends among those on ART by calendar year of ART follow-up; and (Q3) TB incidence by patient's time on ART.** Better understanding of these trends may lead to development of interventions that further reduce HIV-associated TB among individuals on ART.

## BACKGROUND

## CONTEXT

## CHALLENGE

## AIM

# Materials and Methods:

## How did you study your question?

- Validates your study
- Use subheadings to organize this section if needed
- Details on ethical approval and patient consent
- Detailed enough to allow **replication**
  - Procedures, materials used, data collected, data analysis and statistical methods
- Past tense
- **No results yet!**



# Methods

	QUESTION	EXAMPLES
<b>WHO?</b>	Who was the subject of the study? Who was targeted by the program?	“wild-type mice” “men who have sex with men”
<b>HOW?</b>	How was the study designed? How was the outcome of interest measured? How was the data collected and analysed?	“a retrospective clinical chart review was performed” “in-depth open-ended qualitative interview were conducted” “a fisher’s exact test was used “
<b>WHERE?</b>	Where did the study take place? Where was the project implemented?	“University College Hospital in Lagos, Nigeria”
<b>WHAT?</b>	What was measured? What were the factors of interest?	“survival rate over five years” “barriers to implementation”
<b>WHEN?</b>	When did the study take place? When was the programme implemented?	“between March 2015 and June 2017”

Sufficient details



Word limit of manuscript

# Results:

## What findings did your question generate?

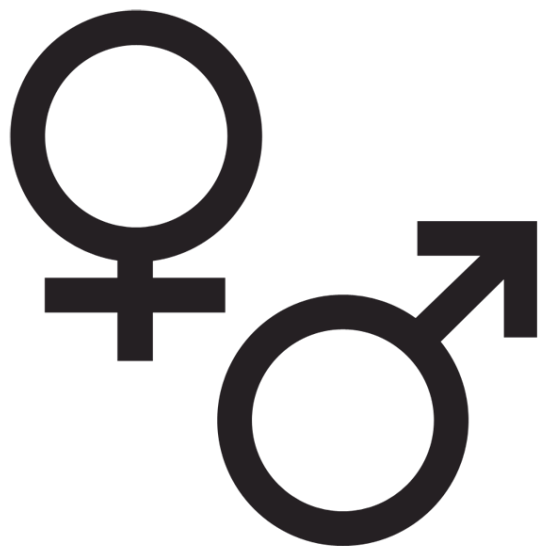
- What is the best way to present your data: table, figure or text?
  - Avoid repetition
  - Be specific
  - Past tense
  - Logical flow
- Present only the results relevant to your question
- Relate results to methods, but do not describe them again
- **Do not discuss yet! And be precise!**

Careful with the word 'significant' and vagues terms (some - many - few)



# Results: Sex and gender analysis

Sex\* and gender\*\* should be integrated into research design, methods and analyses where appropriate



- Study participants
  - ✓ Sex/Gender numbers
  - ✓ Single-sex study, ...why?
- Sex-disaggregated data
  - ✓ Reporting results of sub-populations
- Gender analysis
  - ✓ Effect of..., associated with...?
- SAGER guidelines
  - ✓ Sex and Gender Equity in Research

\*biological differences

\*\*socially constructed roles in specific context

# Reporting of sex and gender in research

## Sex and Gender Equity in Research (SAGER) guidelines

General principles	
• Authors should use the terms <i>sex</i> and <i>gender</i> carefully in order to avoid confusing both terms.	
• Where the subjects of research comprise organisms capable of differentiation by sex, the research should be designed and conducted in a way that can reveal sex-related differences in the results, even if these were not initially expected.	
• Where subjects can also be differentiated by gender (shaped by social and cultural circumstances), the research should be conducted similarly at this additional level of distinction.	
Recommendations per section of the article	
Title and abstract	If only one sex is included in the study, or if the results of the study are to be applied to only one sex or gender, the title and the abstract should specify the sex of animals or any cells, tissues and other material derived from these and the sex and gender of human participants.
Introduction	Authors should report, where relevant, whether sex and/or gender differences may be expected.
Methods	Authors should report how sex and gender were taken into account in the design of the study, whether they ensured adequate representation of males and females, and justify the reasons for any exclusion of males or females.
Results	Where appropriate, data should be routinely presented disaggregated by sex and gender. Sex- and gender-based analyses should be reported regardless of positive or negative outcome. In clinical trials, data on withdrawals and dropouts should also be reported disaggregated by sex.
Discussion	The potential implications of sex and gender on the study results and analyses should be discussed. If a sex and gender analysis was not conducted, the rationale should be given. Authors should further discuss the implications of the lack of such analysis on the interpretation of the results.

This is everybody's responsibility:

- Researchers
- Funders
- Ethics boards
- Journal editors
- Reviewers

# Figures and Tables

- Only when helpful to convey information
- Should be understandable without text
- Choose type based on the kind of data you have
- Avoid overlap with text
- Informative titles and additional details in legend
- Label all axes, columns and rows
- Careful with colours (colour blindness and black/white printing)



# Discussion: order your thoughts



- Did the results answer your question?
- How do your results compare to other studies/models/systems in other countries?
- What were the specific challenges and what can be done to improve the system/model?
- Could your findings be replicated elsewhere in similar settings? Are they generalizable or of local interest?
- What are the implications of the findings for policy, practice, and research?

## Discussion: How did the findings answer your question?

- Do not repeat results, but should be based on the results!
- Use key references to place your study within context
- Discuss the importance and implications of your findings

### Limitations

- Last paragraph before conclusion
- Discuss any limitations and weaknesses including :
  - how do they affect your data
  - if applicable how you addressed them
- You can mention the strengths of the study

**Avoid statements that are not supported by the data!**

In this study, we found that screening for cardiovascular disease risk factors (CVDRF) using two blood pressure measurements, point-of-care testing for HbA1c and total cholesterol, and structured interview to elicit self-reported tobacco smoking and medication use required approximately 11 additional minutes per visit, more than tripling the length of the “refill appointment” component of routine ART visits (...)

Our observations of the length of a routine “ART refill visit” were consistent with other reports of outpatient care in southern Africa. Wagenaar et al. reported that the mean visit length of outpatient consultations in Mozambique was 5.3 minutes [29], Jafry et al. noted that while average visit length to a health clinic in Malawi was 123 minutes, health worker contact time averaged 2.3 minutes [30] (...). In contrast, Wanyenze et al. found the median length of time spent with providers at ART clinics in Uganda to be 65 minutes, but this included time spent with counsellors [32]. Our study is the first to our knowledge to estimate time spent on CVDRF screening integrated in HIV services.

The strengths of this study include the use of direct observation for time-motion data collection, which is less prone to measurement error than other methods [27]. Though direct observation methods may be subject to bias from the Hawthorne effect, the use of an internal unscreened group strengthens our findings. Limitations include the absence of time-motion data on other components of the HIV clinic visit, which could theoretically have been indirectly influenced by the presence of screening during the ART refill. (...)



# Conclusions

- Key take-home messages
- More general
- Wider implications of findings
- Recommendations
- Future research
  
- **AVOID**
  - Obvious statements
  - Repetition of results
  - Over-generalizations!



Which section of a manuscript usually contains the most errors?

# References

- Credibility
  - Knowledge and awareness of the field
  - Avoid citation bias
  - Validate your claims and arguments
- Format your references according to the journal's guidelines
- Read your sources!!



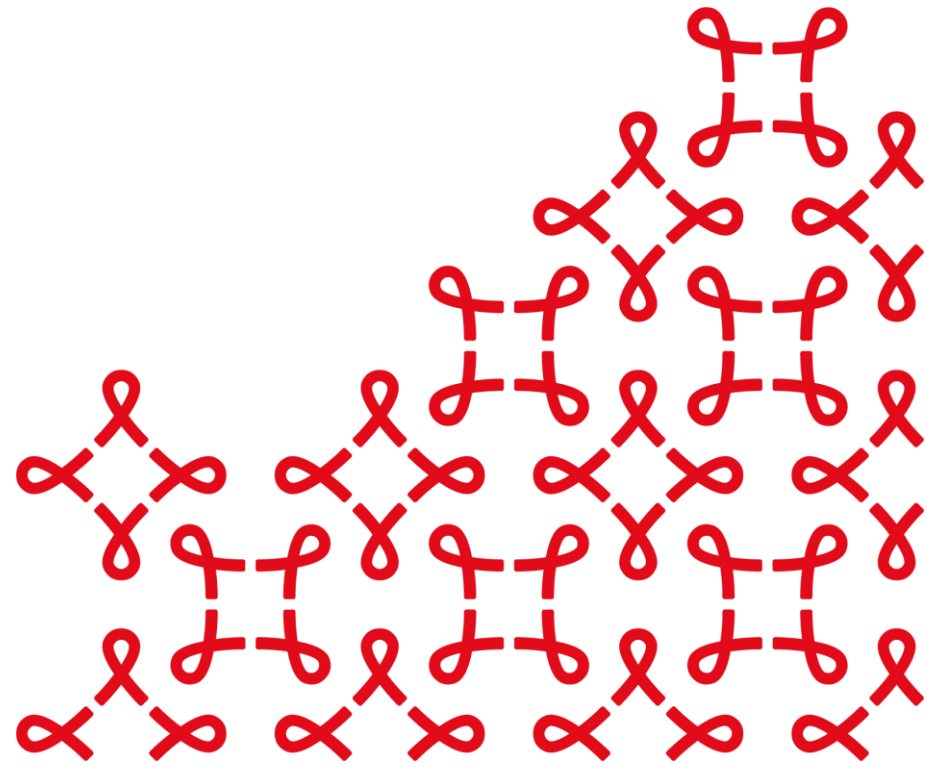
# Other sections

- Acknowledgements and funding source
  - You are responsible for getting written permission for people mentioned here. Comply with your funder's regulations about acknowledging their support.
- Authors' contributions
  - Who has done what?
- Conflicts of interests statement
  - Includes potential Col, not up to you to decide

Do use	Don't use
People living with and affected by HIV	Infected with HIV, HIV or AIDS sufferer, HIV or AIDS patient, HIV or AIDS carrier, positives (a person is not HIV), at risk, high-risk people/population/group
Client, clients	Patient, patients, except in the context of a clinical setting (for example, “doctor-patient relationship”)
Sex work, sex worker	Commercial sex work, commercial sex worker, prostitute, prostitution
Orphans and vulnerable children affected by HIV	AIDS orphans
Persons or people living with disabilities	Disabled
Low- and middle-income countries, resource-limited countries	Developing countries
People who inject drugs	Intravenous drug user, drug addicts, drug abusers
Condomless sex, sex without a condom	Risky sex, unprotected sex
Most vulnerable to HIV acquisition	Most at risk, high-risk people/population/group
End the epidemic; end the HIV or AIDS epidemic	End/eliminate/eradicate HIV or AIDS
The HIV response	Fight, battle, struggle against AIDS or HIV
Young people	Youth

- Refer to the [UNAIDS Editorial Style Guide](https://www.unaids.org/en/resources/documents/2016/editorial_style_guide):  
[https://www.unaids.org/en/resources/documents/2016/editorial\\_style\\_guide](https://www.unaids.org/en/resources/documents/2016/editorial_style_guide)
- Abbreviations and acronyms: Write out in full at first mention; insert acronym or abbreviation in brackets after first mention
- Use [UNAIDS terminology guide](https://www.unaids.org/en/resources/documents/2015/2015_terminology_guidelines):  
[https://www.unaids.org/en/resources/documents/2015/2015\\_terminology\\_guidelines](https://www.unaids.org/en/resources/documents/2015/2015_terminology_guidelines)
- The CDC also offers an easy-to-use [guide on non-stigmatizing language](https://www.cdc.gov/actagainstaids/pdf/.../cdc-hiv-togetherstigmalinguageguide.pdf). <https://www.cdc.gov/actagainstaids/pdf/.../cdc-hiv-togetherstigmalinguageguide.pdf>

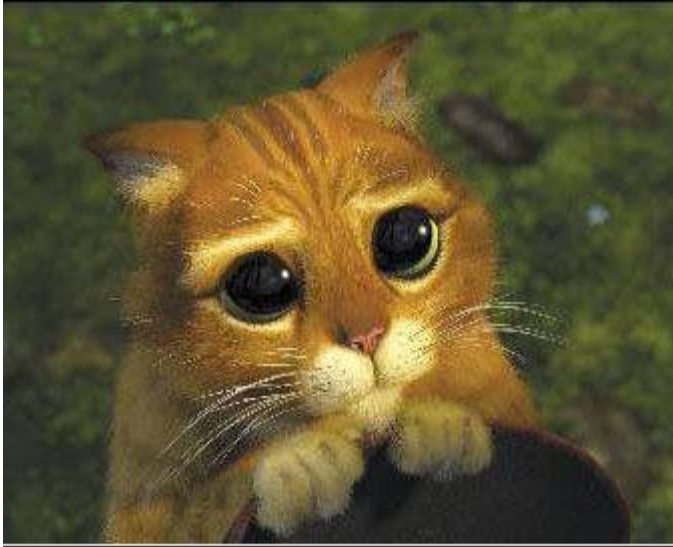
# How to choose a journal and submit a manuscript



# What influences your choice of journal?

- Coverage by indexing
- Open access
- Cost
- Journal's prestige (eg. impact factor)
- Speed of editorial decision
- Readership





## What to do and not to do in manuscript submission

# Where are the instructions?

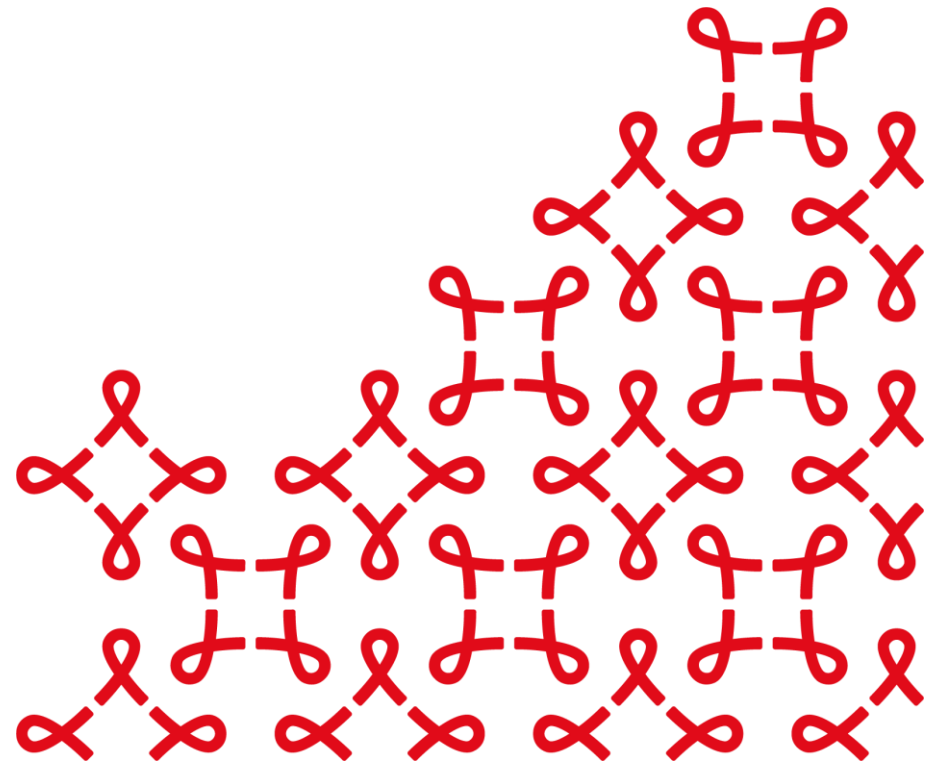
- Instructions for authors: journal webpage
- Examine a recent issue of the journal
- Uniform Requirements for Manuscripts submitted to Biomedical Journals (ICMJE) [[www.icmje.org](http://www.icmje.org)]
- EQUATOR network [<http://www.equator-network.org/>] for example CONSORT (Consolidated Standards of Reporting Trials) [[www.consort-statement.org](http://www.consort-statement.org)]

# Most often ignored instructions

- Word counts
- Reference formats: in-text citations or referencing incorrect
- Tables/figures: inserting in the text rather than at the end of the manuscript or as separate files
- Poor quality: figures/photos or non-standard formats
- Abbreviations: failure to write out the first time they are written in the manuscript

- Statements of manuscript submitted to one journal only **and** not previously published.
- Your chance...
  - to highlight the importance of your study
  - to explain why manuscript of interest to journal

# Editorial decision making and common reasons for rejection

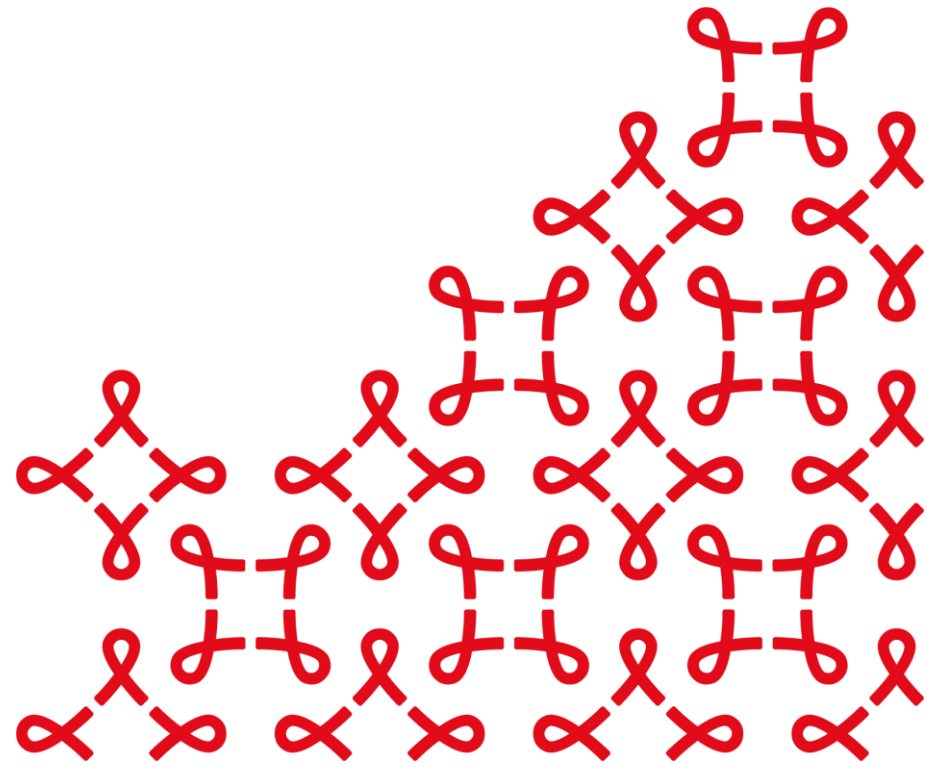


# Editor's checklist upon submission

- Does the manuscript fit within the **scope**
- Is the **objective** of the study clear
- Are the results **important**
- Does the study contribute something **novel**
- Is the study design and methodology **valid**
- Is the presentation of good **quality**



# Responding to peer reviewers and revising your manuscript

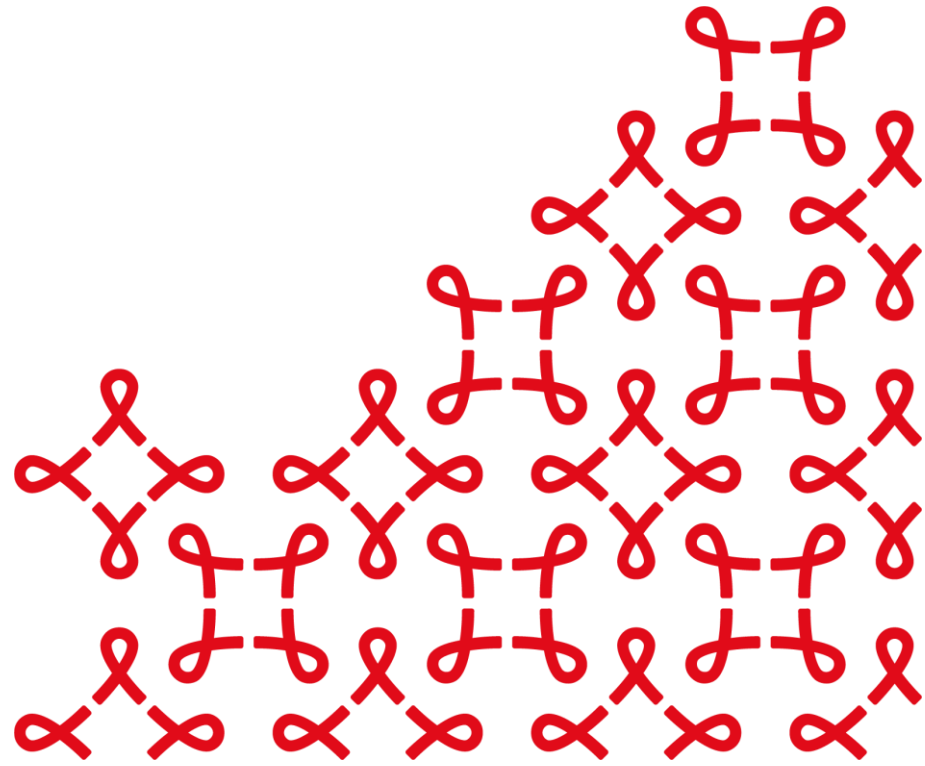


# Replying to reviewers' comments

- Point-by-point reply to *every* comment
- Comply with as many reviewer requests as possible
- Disagree or explain reasons for non-compliance politely and logically
- Keep your reply short and to the point
- Revise your manuscript carefully in light of the reviewers' comments. If they did not understand something, chances are your readers won't either



# Publication ethics



1. Carelessness. Citation bias, understatement, negligence, faulty analyses
2. Plagiarism. Undisclosed sources, copying of text without references
3. Redundancy. Salami publications, self-plagiarism
4. Unfair authorship (ghost and guest authors). Failure to include eligible authors, honorary authors
5. Undeclared competing interest. Personal, professional and financial
6. Subject violations. Human and animal, no ethical review board approval for the study
7. Fraud. Fabrication and falsification

# Thank you!

*This JIAS -IAS Educational Fund Publishing workshop was made possible through an independent educational grant from the Swiss Agency for Development and Cooperation*



Schweizerische Eidgenossenschaft  
Confédération suisse  
Confederazione Svizzera  
Confederaziun svizra

**Swiss Agency for Development  
and Cooperation SDC**

# Useful resources

- Health[e]Foundation – E-course on how to write a conference abstract at [www.healthefoundation.eu](http://www.healthefoundation.eu).
- International Committee of Medical Journal Editors – Uniform requirements for manuscripts submitted to biomedical journals at [www.icmje.org](http://www.icmje.org).
- Committee on Publication Ethics at [www.publicationethics.org](http://www.publicationethics.org).
- European Association of Science Editors – Guidelines for authors at [www.ease.org.uk](http://www.ease.org.uk).
- Wiley Author Services at <https://authorservices.wiley.com/author-resources/index.html>.