## **Discussion Sections**

PIH Cross-site COVID-19 Writing Workshop



• You have your data, you've (factually) stated your results...

> So what? And what now?





#### What is the role of the discussion section?

- 1. What is your interpretation of the results?
  - What were the major things you observed and why do you think these were observed?
- 2. What is the context of your results?
  - Are there other studies/other factors that need to be considered?
- 3. What are the implications of your results?
  - What should change/stay the same based on your study?



#### Steps for writing a discussion





#### What goes into a discussion section?

- 1. Major findings along with
  - Suggestions of why these were observed
  - Other possible explanations for the results
- 2. Relation of these results to other studies
- 3. Study limitations and impact on interpretation
- 4. Major recommendations based on study
- 5. Any recommendations for future research
- 6. The main message that you want readers to leave with ("conclusion")



### Tips for writing a discussion section

- Be brief and specific
- Discuss as much as important (but be careful not to discuss too much that key points are lost)
- Make sure your major hypotheses (from introduction) are discussed
- <u>Make sure statements are supported by the results</u>
- Be critical of your methods



### Tips for writing a discussion section

- Discuss all results that are important, whether or not statistically significant
- Discuss points of view that might be different from your own
- Discuss unexpected findings
- Make sure the readers walk away knowing the value of the study and study recommendations



#### Careful referencing

- In the discussion, it is important to link what you have observed and what you think is happening to other papers.
- However, be careful to reference correctly



### Reference example

- From our study, we believe that having no surgeon/infrastructure at Kirehe and Rwinkwavu DHs may mean patients who need laparotomy don't get it.
- Kruk et al (2010) state limited equipment/surgical specialist mean that people who need surgery might not get it.
- "Limited equipment and lack of surgical specialist at Kirehe and Rwinkwavu might lead to lack of laparotomy for patients who need it (Kruk 2010)."
- "Limited equipment and surgical staff are noted barriers for receiving surgery in SSA (Kruk 2010)"



### What to avoid in writing the discussion

- Don't just repeat the results section
- Don't discuss things that aren't relevant
- Don't overstate the importance and don't "preach"
- Don't state things that aren't justified or supported by the data
  - If you have a reason that you think explains the results, then that reason should be justified beyond what you "think"



#### What else?

- Limitations:
  - No study is perfect. What are some of the biggest limitations of your <u>research</u>?
    - How does this effect your results/interpretation?
    - What is being done to improve these limitations? Or why do you think that these limitations are not a big problem?
    - Be fair, but don't go overboard.
- Concluding paragraph:
  - Your take-home catch.
    - Major lessons
    - Major steps forward



### How to begin:

- 1. Take a step back what are your 3-4 big picture points you want to make to your readers.
  - Spend about 10-15 minutes discussing before you start writing anything down.
- 2. Then, for each point start elaborating (sub-bullets):
  - Does this connect to other studies (similar, refute)? Are there explanations for what you see (references, or *limitedly*, "in our experience")? Anything surprising? Anything uncertain?
  - Put references as you go (Last Name, YYYY) or a place holder (ref)
  - Anticipate spending 20-40 minutes per paragraph.
- 3. Start drafting paragraphs. This is not easy, and will take several rounds  $\bigcirc$ .
- 4. May be easiest to do first paragraph "In this study, we found…", limitations paragraph, and conclusion at the very end.



# Questions?

