



IUSSP Writing Workshop

Ulwazi Place, APHRC Campus, Nairobi, Kenya

March 15 ~ 17, 2023

POST-TRAINING REPORT



Prepared by

Research Capacity Strengthening (RCS) Division and the Policy Engagement
and Communications Division.

African Population and Health Research Center (APRC)

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INTRODUCTION

Research findings published in peer-reviewed journals are viewed as scientifically sound. They can be used by other researchers and practitioners with similar interests as evidence that inform policy and practice. However, science paper writing and publishing in international peer-reviewed journals can be an overwhelming task, especially for a beginner. To address this gap in science paper writing and publishing, the African Population and Health Research Center ([APHRC](#)) conducted an in-person short-course training workshop on March 15-17, 2023, at Ulwazi Place, APHRC Campus, Nairobi, Kenya.

The **objective** of the workshop was to strengthen the capacity of IUSSP fellows to become more effective and confident writers of science papers for publication in international peer-reviewed journals. This report presents the findings of an immediate post-training evaluation survey (IPTES) administered on the last day of the workshop. It is organized as follows. First, **PARTICIPANTS** are described, followed by a description of the **METHODS** (including instructional strategies employed) and **DATA COLLECTION AND ANALYSIS**. Finally, **FINDINGS** and **FACILITATORS' REFLECTIONS AND RECOMMENDATIONS** are presented. The training agenda is appended.

PARTICIPANTS

The target audience for this course included IUSSP fellows. The workshop was delivered in English. Whereas seven participants were expected, this report is based on an analysis of IPTES data obtained from four participants (57% response rate). The four participants were all men with Ph.D.

METHODS

Assessing existing knowledge gaps

Before this workshop, the project manager inquired from the fellows about what areas they had existing gaps in knowledge, skills, or abilities related to scientific writing. This information was helpful to course facilitators in the preparation of content that could help fill identified gaps. Information obtained was shared with facilitators to inform content preparation. Briefly, we found that whereas three of the fellows had published before, they all expressed interest in being supported on how to prepare the Discussion section of a scientific paper. Another area of interest was how to prepare a policy brief. Altogether, this feedback informed content preparation for the course.

Facilitators employed different instructional strategies in delivering the training. Descriptions of these strategies are provided next.

Lecture using PowerPoint presentations and Q-A

Facilitators presented the content with PowerPoint slides, giving participants the opportunity during and after presentations to seek clarity, ask questions, and receive feedback from peers and facilitators. Facilitators used analogies to create appropriate content and mental pictures for the participants. They posed random questions to assess the level of understanding of the content presented. Participants provided feedback during the sessions, at health break times, and during appraisal and feedback. Based on the feedback provided, necessary changes in instruction were made immediately rather than waiting until the end of the workshop. All participants received PowerPoint slides (as PDF) and other valuable resources at the end of each day.

Peer learning via group exercise, presentation, and feedback

Due to the interactive nature of training and having a variety of participants exposed to different/new concepts, participants were able to learn from one another. For example, following each learning session, participants presented their work and received critical feedback from peers and facilitators. Peer learning was also evident in plenary sessions whereby participants conversant with certain concepts and used the opportunity to explain to their peers these concepts.

DATA COLLECTION AND ANALYSIS

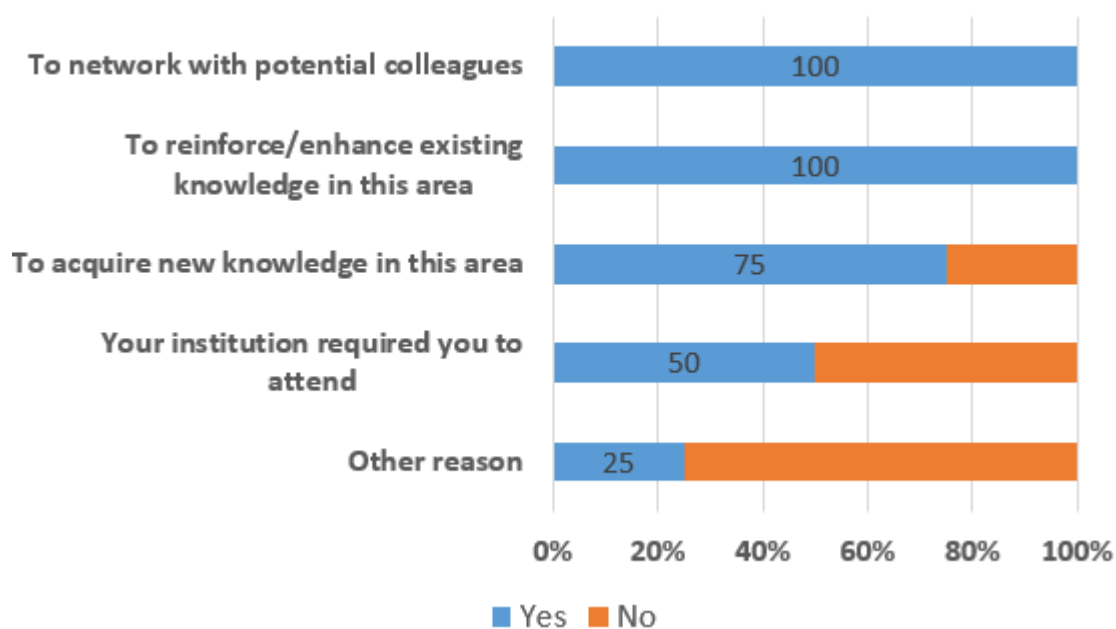
To assess the effect of this training, two types of evaluations were planned. First, *daily session evaluations* were administered at the end of each day via Mentimeter. Preliminary findings were shared with facilitators at the end of each day to inform subsequent presentations, and comprehensive findings were shared post-workshop. Two, *an immediate post-training evaluation* survey (IPTES) was conducted at the end of the last day to gather data related to participants' satisfaction and perceived knowledge/skill gain. Most survey items are close-ended (aimed at collecting quantitative data), with a few open-ended items (aimed at collecting qualitative data). Quantitative data were analyzed and summarized using descriptive statistics, frequency tables, and graphs. Qualitative data were thematically content analyzed and summarized using theme frequency (i.e., the number of participants who made a statement/comment classified under a given theme). Findings from this evaluation survey are being shared in this report.

FINDINGS

Reasons for attending the workshop

All participants indicated that they attended the workshop to network with potential colleagues and to reinforce/enhance existing knowledge in this area (100%). Half of them said they attended because their institution required them to participate in the training (50%).

Figure 1. Reasons for attending the workshop (n = 4)



Reaction to the training

All participants agreed or agreed strongly that: 1) Facilitator(s) displayed mastery of content, 2) There was an opportunity for interaction, 3) Facilitator adequately responded to questions asked, 4) Evidence was provided to support information shared, 5) Balanced view of information was provided, 6) Content presented applied to their work, 7) They intend to apply what they learned in your work, and 8) They intend to share what you learned with peers.

Table 1: Participants' Level of Agreement Level With Training Characteristics (n = 4).

| Training Characteristics | | D+DS | DS | D | N | A | AS | AS+A |
|--------------------------|---|------|----|----|---|----|----|------|
| | | % | % | % | % | % | % | % |
| 1. | The facilitator (s) displayed mastery of the content | 0 | 0 | 0 | 0 | 25 | 75 | 100 |
| 2. | There was an opportunity for interaction | 0 | 0 | 0 | 0 | 50 | 50 | 100 |
| 3. | The method of delivery used was adequate | 25 | 0 | 25 | 0 | 50 | 25 | 75 |
| 4. | The facilitator adequately responded to the questions asked | 0 | 0 | 0 | 0 | 75 | 25 | 100 |
| 5. | Evidence provided to support information shared | 0 | 0 | 0 | 0 | 25 | 75 | 100 |

| | | | | | | | | |
|-----|---|----|----|----|----|----|-----|-----|
| 6. | A balanced view of information was provided | 0 | 0 | 0 | 0 | 25 | 75 | 100 |
| 7. | The technology used interfered with your learning | 0 | 0 | 0 | 25 | 50 | 25 | 75 |
| 8. | Length of the session (time taken) was adequate | 25 | 25 | 0 | 50 | 50 | 0 | 50 |
| 9. | The content presented applied to your work | 0 | 0 | 0 | 0 | 50 | 50 | 100 |
| 10. | You intend to apply what you learned in your work | 0 | 0 | 0 | 0 | 0 | 100 | 100 |
| 11. | You intend to share what you learned with peers | 0 | 0 | 0 | 0 | 25 | 75 | 100 |
| 12. | Stated learning objectives were met | 25 | 0 | 25 | 0 | 0 | 75 | 75 |

Note: **DS**= Disagree Strongly; **D**= Disagree; **N**= Neutral; **A**= Agree; **AS**= Agree Strongly

Change in knowledge/skill due to the training

Using a 5-point rating scale (1 = Novice; 2 = Beginner; 3 = Competent; 4 = Proficient; and 5 = Expert), participants self-rated their level of knowledge/skill before and after the training regarding different topics covered during the workshop. Significant increase in knowledge were found. For instance, the percentage of participants who self-rated their level of knowledge as Novice or Beginner reduced drastically after the training, especially in the following two areas: Policy engagement- case studies from IMCHA Initiative & Immunization Advocacy and Visual communication- using infographics (a 50% drop as shown in Table 2). Similarly, there was a significant increase in the percentage of participants self-rating as Proficient or Expert after the training, especially in the following two areas: Working with the media - traditional and social media for research communication and Writing METHODS section (Quant or Qual Paper), an increase of 50% and 25%, respectively.

Table 2: Rating of Overall Knowledge Level Before and After the Training (n = 4)

| Area/Topic | Timing | Novice | Beginner | Competent | Proficient | Expert |
|--|--------|--------|----------|-----------|------------|--------|
| 1. Policy engagement- case studies from IMCHA Initiative & Immunization Advocacy | Before | 0 | 100 | 0 | 0 | 0 |
| | After | 0 | 50 | 25 | 25 | 0 |
| 2. Visual communication- using infographics | Before | 50 | 50 | 0 | 0 | 0 |
| | After | 0 | 50 | 25 | 25 | 0 |
| 3. Working with the media - traditional and social media for research communication | Before | 25 | 25 | 50 | 0 | 0 |
| | After | 0 | 25 | 25 | 50 | 0 |
| 4. Developing Policy Brief (Introduction, Approach, Findings, Conclusion, & Recommendations) | Before | 25 | 50 | 25 | 0 | 0 |
| | After | 0 | 25 | 75 | 0 | 0 |
| 5. The Publication Process | Before | 0 | 25 | 25 | 50 | 0 |
| | After | 0 | 25 | 25 | 50 | 0 |
| 6. Writing the INTRODUCTION section | Before | 25 | 25 | 0 | 50 | 0 |
| | After | 0 | 25 | 0 | 75 | 0 |
| 7. Writing METHODS section (Quant or Qual Paper) | Before | 25 | 0 | 25 | 50 | 0 |
| | After | 0 | 25 | 0 | 50 | 25 |
| 8. Writing METHODS section (Mixed | Before | 25 | 25 | 0 | 50 | 0 |

| | | | | | | | |
|----|---|--------|----|----|----|----|---|
| | Methods Paper) | After | 0 | 25 | 0 | 75 | 0 |
| 9. | Writing RESULTS and DISCUSSION sections | Before | 25 | 0 | 25 | 50 | 0 |
| | | After | 0 | 0 | 25 | 75 | 0 |

What participants liked the most about the training

All the participants (n=4) commented on what they liked the most about the training. Thematic content analysis of these comments yielded two themes (frequencies in parenthesis): Interactive Nature (50%) and Practical nature (50%). Concerning the interactive nature of the training, one participant commented that using "examples including fellows' papers and policy briefs to frame the discussions were helpful." **Table 3** presents verbatim reports of participants' comments.

Table 3: What Participants Liked the Most About the Training

| Participants Verbatim Comments | |
|--------------------------------|--|
| 1 | Interaction , case studies, hands-on work, and mentoring |
| 2 | The sessions were efficient and helped to improve our initial drafts |
| 3 | The practical writing approach |
| 4 | The interactive use of examples, including fellows' papers and policy briefs to frame the discussions, was helpful. |

How the training can be improved?

Four participants (92%) commented on how the training could be improved. Whereas two students felt that more time would have been beneficial, one fellow thought that the format was adapted to the audience. One fellow felt that didactic teaching could be cut out in the future. **Table 4** presents verbatim reports of all comments.

Table 4: How the Training Can be Improved (n = 4)

| Verbatim Statement | |
|--------------------|---|
| 1 | I finally think the format was adapted to the audience |
| 2 | More time on the scientific writing sessions |
| 3 | Provide more personal time to do writing, including providing early arrival time for those willing |
| 4 | Much of the more theoretical/didactic teaching should be cut out |

How fellows would use the knowledge gained from the training in their work

All participants made comments regarding how they would use the knowledge gained from the training in their work. **Table 5** presents verbatim reports of how the fellows planned to use the acquired knowledge.

Table 5: Future Training Topics Suggested by Participant (n = 4)

| Verbatim Statement | |
|--------------------|--|
|--------------------|--|

| | |
|---|---|
| 1 | I plan to replicate the training and have started a manuscript |
| 2 | I will use this to improve my future scientific writing and policy communication work |
| 3 | I will use it to do my policy communications, share with colleagues, include it in the postgraduate curriculum, and mentor students on the same |
| 4 | I plan to use the experience I gained in developing policy briefs to write more briefs from my research. |

CONCLUSION

The purpose of the workshop was to strengthen the capacity of fellows to become more effective and confident writers of science papers for publication in international peer-reviewed journals. There was a significant change in knowledge/skill, with most participants reporting competence, proficiency, and expertise after the training across all topics covered. Participants were impressed with the mode of delivery employed by the facilitators, especially the interactive and practical nature of the course. Participants suggested that the training could have been more effective if more time was allowed.

FACILITATORS REFLECTION AND/OR RECOMMENDATIONS

Based on their experience conducting this *Science paper Writing and publishing* workshop, the facilitators recommend the following for consideration by the IUSSP management team:

- Participants have expressed a strong need for more time for the course to be more effective. We concur and add that typically, this course lasts for five days as opposed to three days. This duration enables the facilitators to cover important content and time to ensure practical aspects of the course.
- It would be a good idea to follow up with participants who committed themselves to publishing their manuscripts following the workshop. The follow-up data enable us to document the outcome of this course.
- We noted that there were very few participants, and some were distracted and needed to participate in the workshop thoroughly. This should be looked into in case this course is offered again. Full participation is critical for successful learning and knowledge retention.

Appendix 3: Training Agenda

| Time | Activity | Facilitators |
|---|--|--|
| Day One - March 15, 2023 – Policy Communications | | |
| 8.30 - 8.45 | Opening remarks | Prof. Trudy Harpham |
| 8.45 - 9.15 | Policy engagement- case studies from IMCHA Initiative & Immunization Advocacy | Lynette Kamau |
| 9.15 -10.00 | Visual communication- using infographics | Michelle Mbuthia |
| 10.00 - 10.20 | Coffee break | |
| 10.20 -10.40 | Working with the media- traditional and social media for research communication | Michelle Mbuthia |
| 10.40 -11.00 | Peer learning session | Eliphas Gitonga |
| 11.00 -13.00 | Developing a policy brief <ul style="list-style-type: none"> • Introduction • Approach • Findings | Lynette Kamau Michelle Mbuthia Jane Mangwana |
| 13.00 – 14.00 | Lunch | |
| 14.00 -16.00 | Developing a policy brief - conclusion and policy recommendations | Lynette, Michelle & Jane |
| 16.00 -16.30 | <i>Appraisal & Feedback</i> | Grace Maina/Diana Awuor |
| Day Two- March 16, 2023 - Scientific Writing | | |
| 8.30- 8.40 | Recap | Michelle Mbuthia |
| 8.40- 9.40 | The publication process | Prof. Harpham |
| 9.40-10.20 | Writing the INTRODUCTION section | Hesborn Wao |
| 10.20- 10.40 | Coffee break | |
| 10.40-11.40 | Writing METHODS section (Quant. Paper) | Patrick Owili |
| 11.40-12.40 | Writing METHODS section (MMR Paper) | Hesborn Wao |
| 13.00- 14.00 | Lunch | |
| 14.00-15.00 | <i>Feedback on INTRO & METHODS sections</i> | <i>Hesborn & Patrick</i> |
| 15.00-16.00 | <i>Feedback on INTRO & METHODS sections</i> | <i>Hesborn & Patrick</i> |
| 16.00 -16.30 | <i>Appraisal & Feedback</i> | <i>Diana Awuor</i> |
| Day Three- March 17, 2023 - Scientific Writing cont. | | |
| 8.30- 8.40 | Recap | Lynette Kamau |
| 8.40-9.40 | Writing RESULTS & DISCUSSION sections | Patrick Owili |
| 9.40-10.40 | <i>Feedback on RESULTS & DISCUSS sections</i> | <i>Hesborn & Patrick</i> |
| 10.40- 11.00 | Coffee break | |
| 11.00-12.00 | Share the story of your research/findings, the learnings, and value for society | Fellows |
| 12.00-13.00 | Peer sharing: The good, the challenging, and learning from your research & policy engagement experiences | Fellows |
| 13.00- | Lunch | |

| | | |
|--------------|--|--------------------------|
| 14.00 | | |
| 14.00-15.00 | Review of draft policy briefs and feedback | Michelle, Lynette & Jane |
| 15.00-15.15 | Immediate Post-Training Evaluation | Diana Awuor |
| 15.15-15.30 | Final remarks and closing | All |