Self- reported Occurrence and Correlates of Research Misconduct among HIV Researchers in Kenya

Dr. Edwin Were, e-mail: eowere@gmail.com Moi University, P.O. Box 4606-30100, Eldoret, Kenya

Ms Eunice Kaguiri, email: kaguirie@yahoo.co.uk Moi University, P.O. Box 4606-30100, Eldoret, Kenya

Ms Jepchirchir Kiplagat, e-mail: chiri2809@gmail.com AMPATH, P.O. Box 4606-30100, Eldoret, Kenya

June 2, 2019.

Moi University Teaching Hospital, Kenya

Disclaimer

- This work is supported through Award Number G11TW010554 from the Department of Health and Human Services National Institutes of Health, Fogarty Institute Center. The content of this abstract is responsibility of the authors and does not necessarily represent the official views of the Fogarty Institute Center, the National Institutes of Health or the US Department of Health and Human Services.

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Definitions

Research misconduct means *fabrication, falsification, or plagiarism in proposing, performing, or reviewing research, or in reporting research results*.

Does not include honest errors or differences in opinion.

The National Science Foundation, USA recognizes other Detrimental Research Practices (DRPs) aka Questionable Research Practices (QRPs) but focuses on FFP

Sources

1.https://ori.hhs.gov/definition-misconduct

2.National Academies of Sciences, Engineering, and Medicine. 2017. Fostering Integrity in Research. Washington, DC: The National Academies Press. doi: https://doi.org/10.17226/21896.

Research Integrity principles include reliability, honesty, respect and accountability

Source: ALLEA (All European Academies) : The European Code of Conduct for Research Integrity (Revised), 2017.

Occurrence of RM

Joseph Ana et al , **Research Misconduct in Low- and Middle-Income Countries:** PLoS Med. 2013 Mar; 10(3): e1001315.

- 2% – 14% of scientists may have fabricated or falsified data
- 33 – 75% may be guilty of “questionable research practices.”

Occurrence of RM

Okonta et al, Prevalence of Scientific Misconduct in Nigeria, Dev World Bioeth. 2013 Dec; 13(3): 10.1111/j.1471-8847.2012.00339.x.

- Used SMQ-R tool
- 68.9% had committed at least one RM
- 42% of researchers had committed falsification of data or plagiarism

Misconduct accounts for the majority of retracted scientific publications

Ferric C. Fang[a,b,1], R. Grant Steen[c,1], and Arturo Casadevall[d,1,2]

Departments of [a]Laboratory Medicine and [b]Microbiology, University of Washington School of Medicine, Seattle, WA 98195; [c]MediCC! Medical Communications Consultants, Chapel Hill, NC 27517; and [d]Department of Microbiology and Immunology, Albert Einstein College of Medicine, Bronx, NY 10461

Edited by Thomas Shenk, Princeton University, Princeton, NJ, and approved September 6, 2012 (received for review July 18, 2012)

- Reviewed 2047 retracted biomedical journal articles indexed in Pubmed 2012 (1975 -2012)
- 21.3% due to error
- **67.4% due to misconduct**
  - 43.4% fraud (Fabrication and falsification
  - 14.2% duplicate publications
  - 9.8% plagiarism
- **10 fold increase in fraud since 1975**

Objective

- Estimate the occurrence of self-reported RM among HIV researchers in Kenya
- Describe factors associated with self reported RM.

Methods

- Cross- sectional survey
- Study population: HIV research investigators and coordinators approved by MTRH, KNH & Moi IREC and listed on *NACC's Maisha Maarifa* database
- Census sample of 667 respondents
- Viewed an informed consent document before being invited to complete survey tool anonymously
- SMQ-R instrument (Broome etal, 2005) used – as an online survey on REDCAP platform
- The prevalence of **self-reported personal experience** with RM and associated factors assessed using Fishers Exact or Chi square tests were derived.

Methods ctd

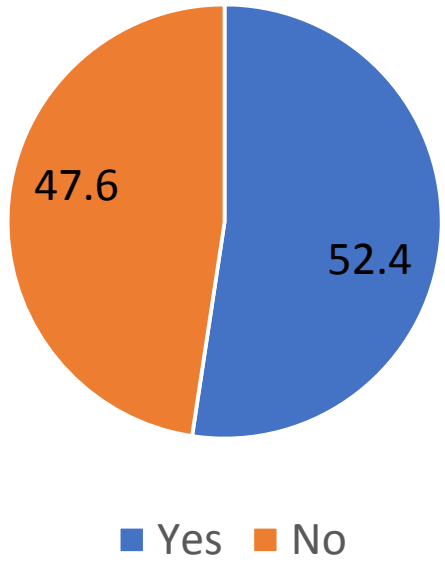
- Used a modified Scientific Misconduct Questionnaire-Revised (SMQ-R) tool to estimate the prevalence of RM.
    - The tool assesses perceptions of various stakeholders on RM

Response Rate

- 100 out of 667 (15%) completed the survey after 3 reminders.

Frequency & correlates of Awareness of RM in the last 5 years.

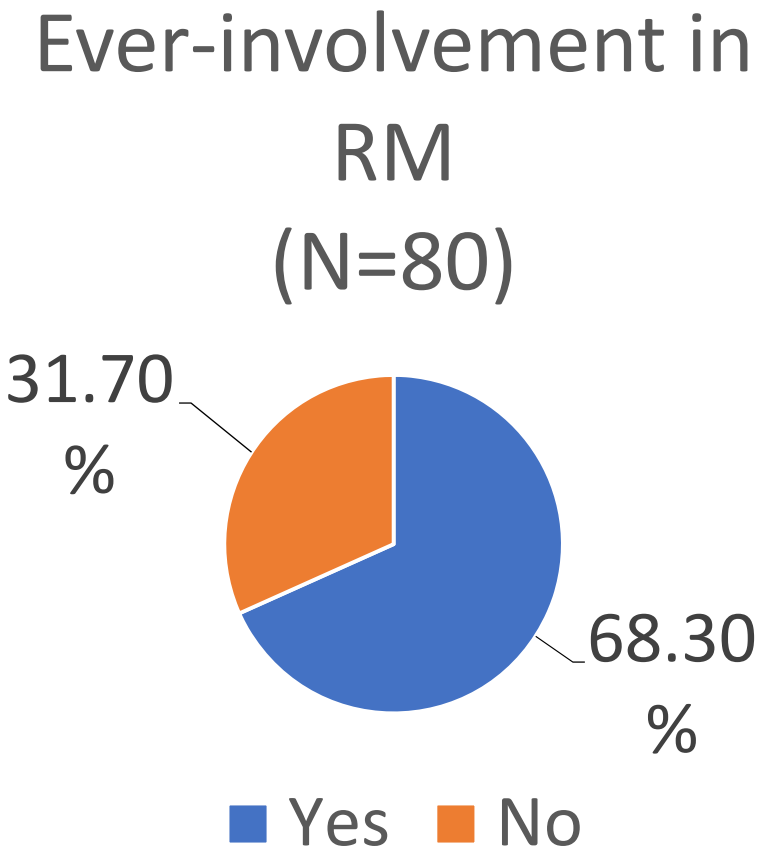
Awareness of RM in the past 5 years (N=87)



Correlates of Awareness of RM in last 5 years

		Awareness report		
Factors		Never	Yes	p-value
Position held(N=86)	Clinician (n=25)	17(42.5%)	8(19.1%)	0.016
	Lecturer (n=20)	7(17.5%)	13(27.7%)	
	Researcher (n=22)	12(30%)	10(21.3%)	
	Other (n=19)	4(10%)	15(31.9%)	
Severity of penalties for SM(n=88)	Low (n =60)	22(53.7%)	38(80.9%)	0.006
	High(n=28)	19(46.3%)	9(19.1%)	
Chances of getting caught for SM if it occurs(n=89)	Low (n=60)	21(51.2%)	39(81.3%)	0.003
	High (n=29)	20(48.8%)	9(18.7%)	
Researchers support of rules and procedures related to SM(n=88)	Low (n=33)	9(22%)	24(51.1%)	0.005
	High (n=55)	32(78%)	23(48.9%)	
The effectiveness of your institution's rules and procedures for reducing SM(n=88)	Low (n=46)	13(31.7%)	33(70.2%)	<0.0001
	High (n=42)	28(68.3%)	14(29.8%)	

Frequency & Correlates of Self Reported Ever involvement in any RM

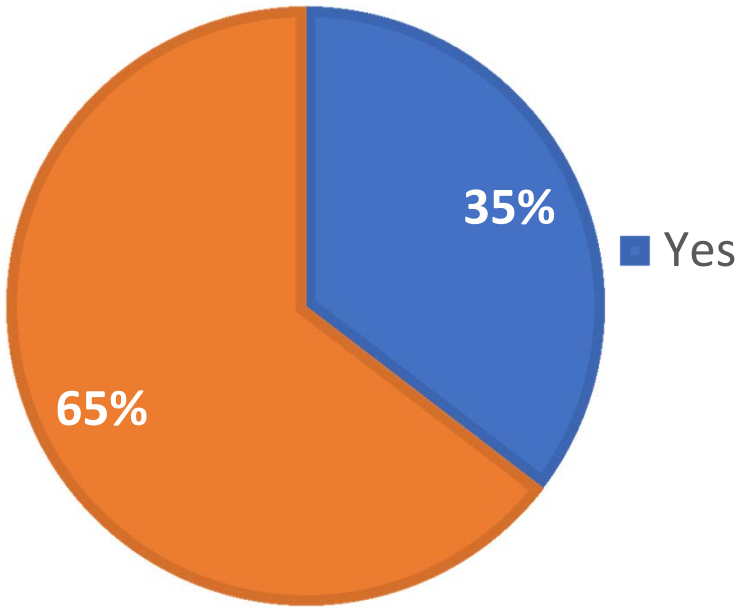


- Okonta et al,2013: Nigeria - 68.9%

Correlates of ever-involvement in any RM

		Ever- involvement in RM		
Characteristics/Ratings	Category	Never	Yes	p- value
Researchers' understanding of rules and procedures related to SM(n=81)	Low (n=30)	4(15.4%)	26(47.3%)	0.006
	High (n=51)	22(84.6%)	29(52.7%)	
Researchers support of rules and procedures related to SM(n=81)	Low (n=31)	6(23.1%)	25(46.3%)	0.046
	High (n-50)	20(76.9%)	30(53.7%)	
The effectiveness of your institution's rules and procedures for reducing SM(n=80)	Low (n=40)	9(34.6%)	31(57.4%)	0.056
	High (n=40)	17(65.4%)	23(42.6%)	

Self-Reported Ever-involvement in & correlates of FFP.



- Fanelli, 2009: HICs – 1.79% FFP & 33.7% QRPs on self report
- Higher frequency when reporting on colleagues

Correlates of ever involvement in FFP

		Ever-involved in FFP		
Factor	Category	Never	Yes	p value
Chances of getting caught for SM if it occurs(N=81)	Low (n=53)	28(53.8%)	25(86.2%)	0.003
	High (n=28)	24(46.2%)	4(13.8%)	
Researchers support of rules and procedures related to SM(n=80)	Low (n=31)	15(29.4%)	16(55.2%)	0.023
	High (n=49)	36(70.6%)	13(44.8%)	

Conclusions

- Awareness of cases of RM, personal involvement in any RM and, specifically, FFP were frequent.
- Reports of RM were associated with:
  - Experience in research,
  - Perception of effectiveness of institutional rules and procedures relevant to RM and
  - Perceived severity of related penalties, were associated these reports.

Recommendations

- Research and Academic institutions should develop and disseminate widely rules & regulations governing responsible conduct of research.
- Such regulations should have clearly defined procedures and sanctions for managing research misconduct.

Acknowledgements

- NIH
- Kenyan HIV Researchers
- NACOSTI, Kenya
- NACC, Kenya

Thank you