

Gynecological Fistula and Its Association with Sexual Violence and Maternal Health Indicators

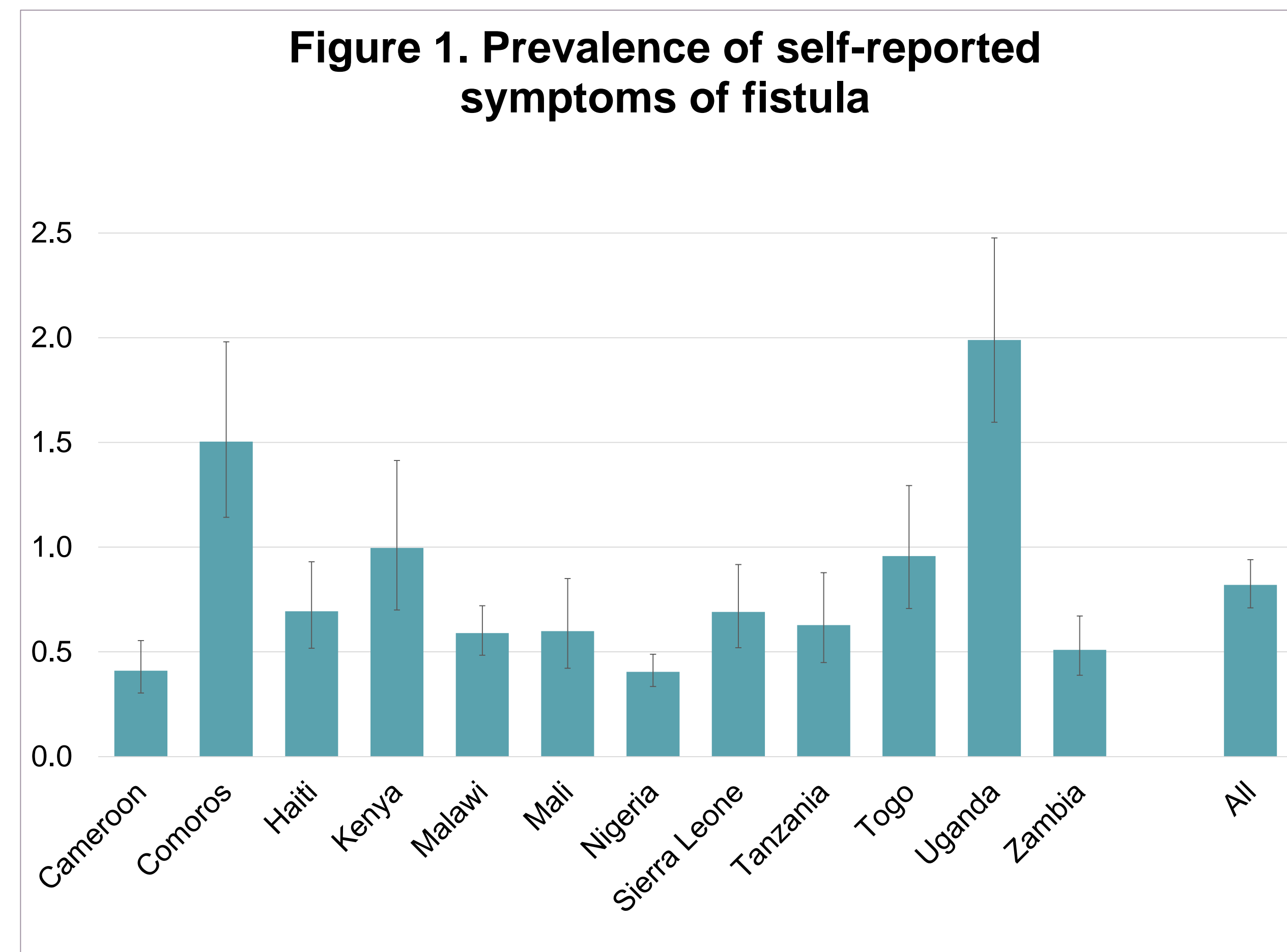
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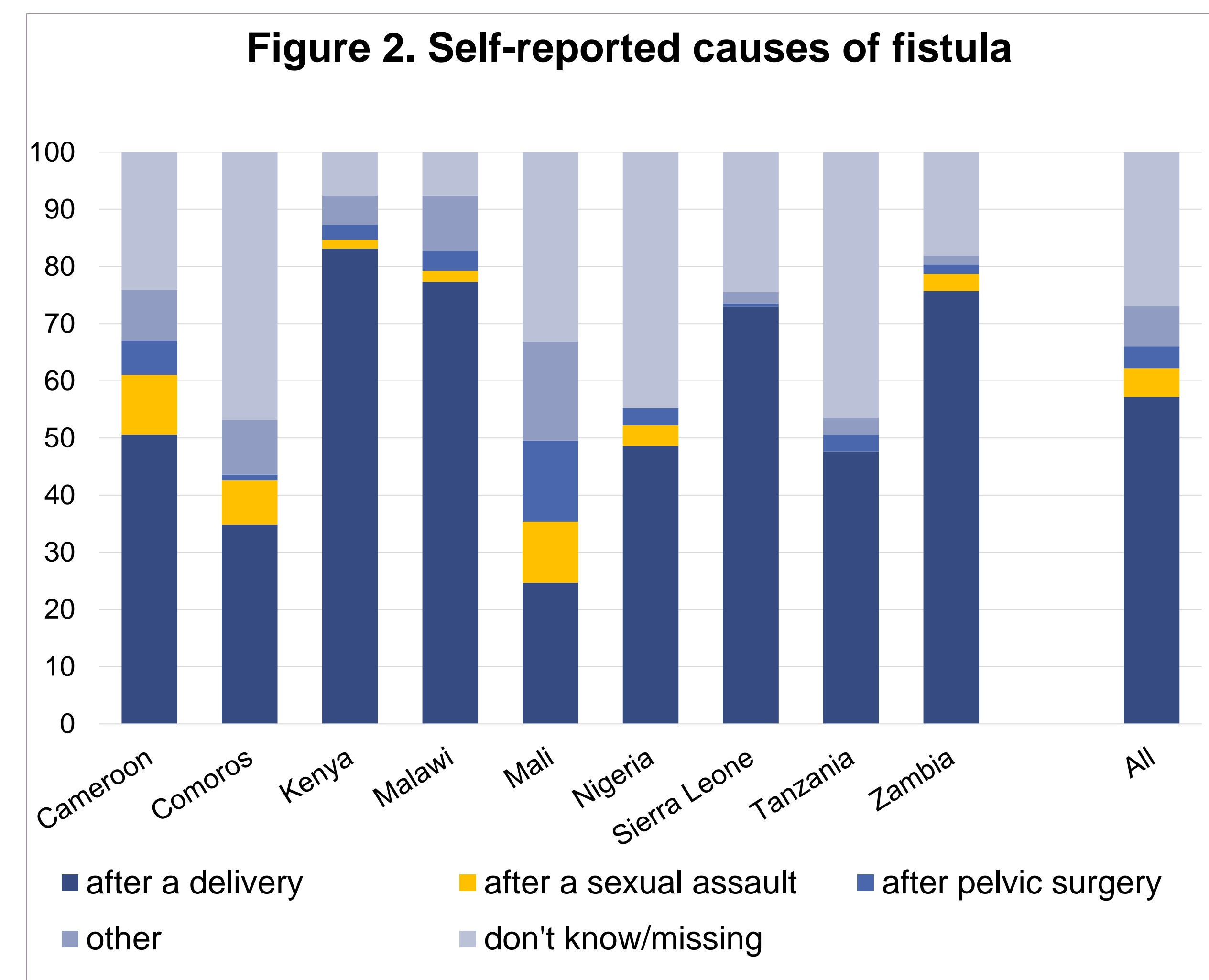
Introduction

Background

- A fistula is an abnormal opening in the vagina that causes urinary and/or fecal incontinence.



- Fistulas are typically caused by prolonged or obstructed labor but can also be caused by trauma or provider error.



- The condition has profound psychosocial and other consequences for affected women, who are often the poorest and most vulnerable.
- Studies have shown bivariate associations of fistula and experience of violence.
- While sexual violence is discussed as a cause of traumatic fistula, almost no studies have evaluated the temporal relationship between violence and fistula.

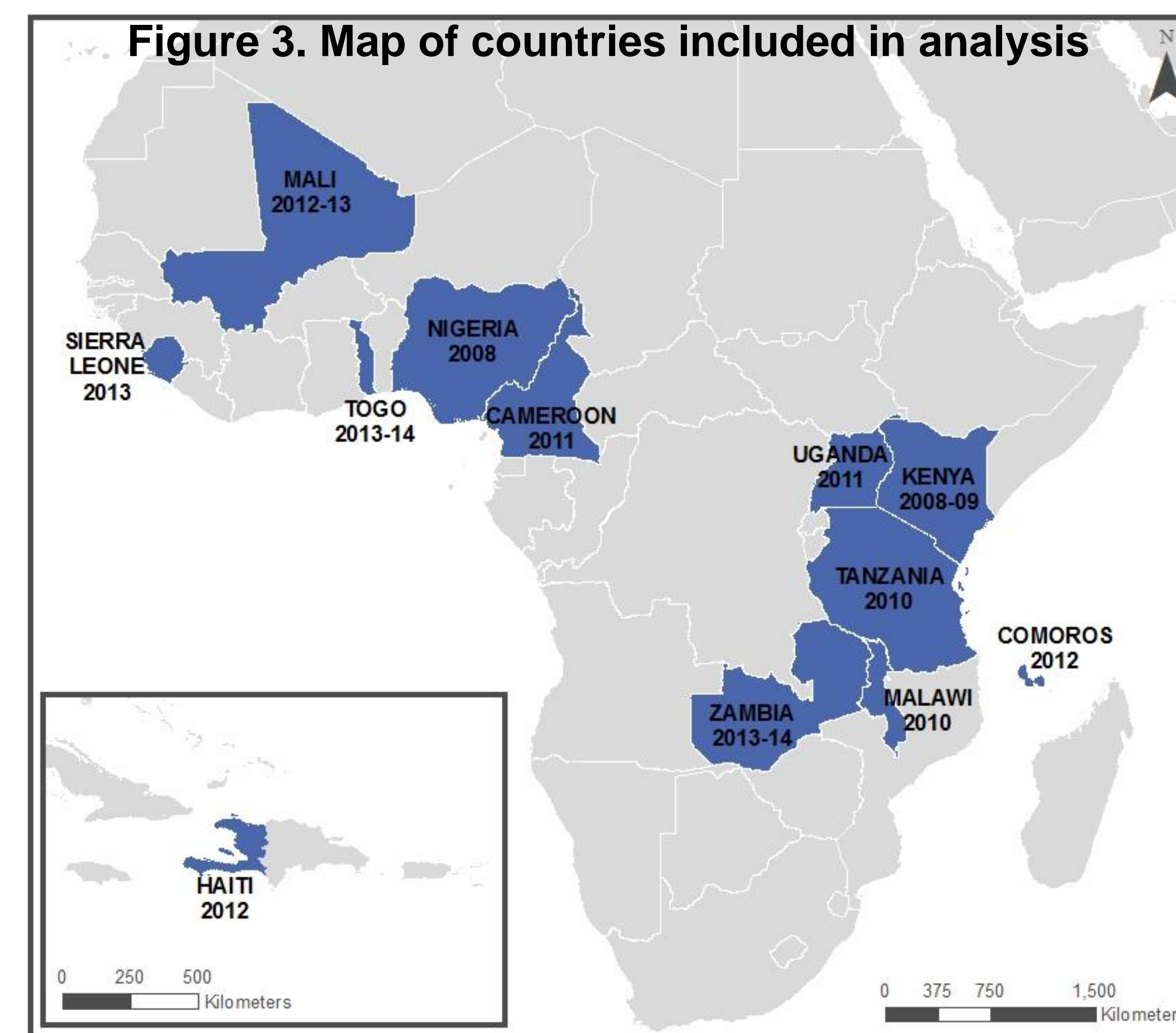
Research objective

- To evaluate the association between self-reported lifetime experience of fistula symptoms and ever and recent experience of Gender Based Violence (GBV) among women interviewed in DHS surveys
- To begin to investigate and account for temporality in the relationship between GBV and fistula symptoms

Methods

Data

- 12 household-based DHS surveys in sub-Saharan Africa and Haiti, including 171,677 women ages 15-49
 - Nationally representative surveys
 - Surveys contain standardized questions on domestic violence and fistula
- Data from the 12 surveys were pooled to create one dataset
 - Each survey was weighted equally
- Only women who were selected and completed the interview on domestic violence in privacy were included in the analysis
 - 90,276 women in the final sample



Measures

- Symptoms of fistula** is a woman's self-report of symptoms of constant leakage of urine or stool from the vagina during the day and night.
- Violence** is a woman's self-report of ever and recent (last 12 months) experience of physical and sexual violence.
- Perpetrator of first act of sexual violence** is identified by a woman who experienced sexual violence; categorized as being a partner (current or former husband, partner, or boyfriend) or non-partner (any other perpetrator).
- Terminated pregnancy/stillbirth** is defined as ever having a pregnancy that resulted in a miscarriage, abortion, or stillbirth, rather than a live birth.

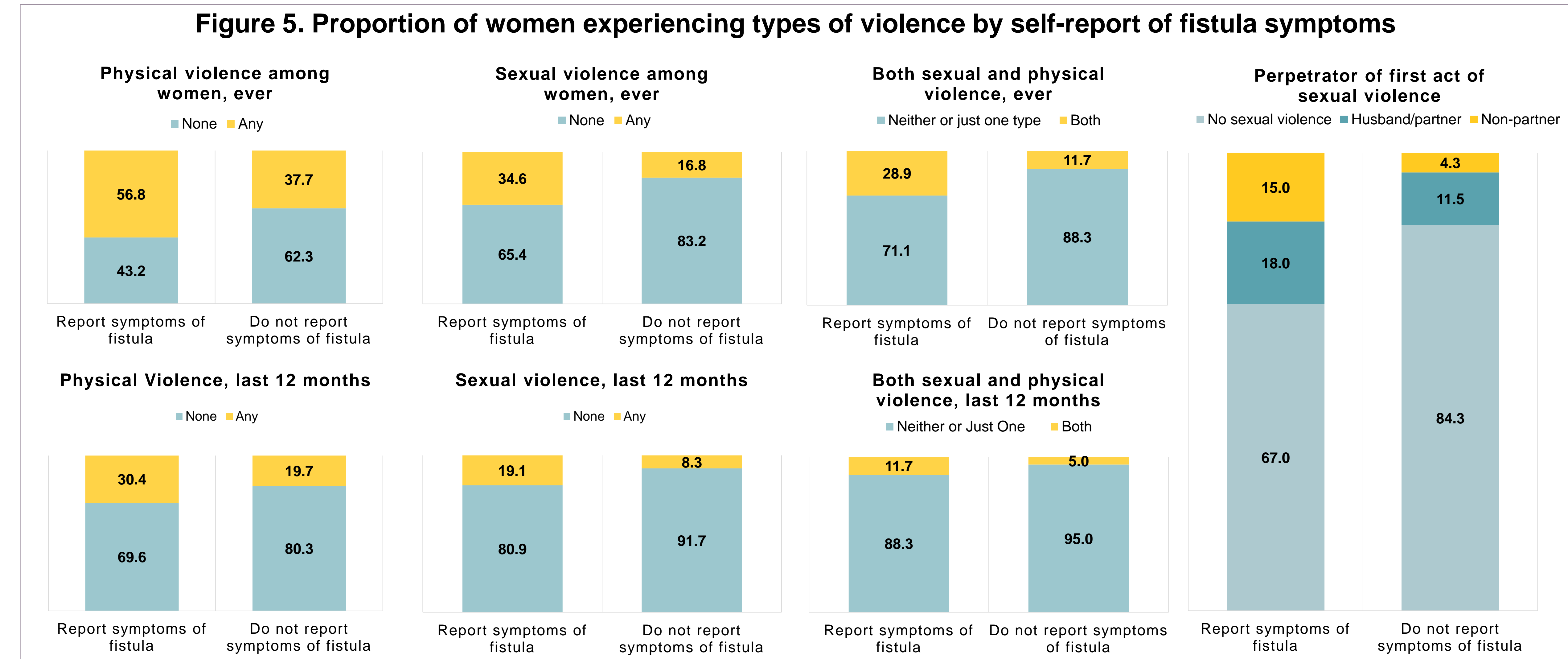
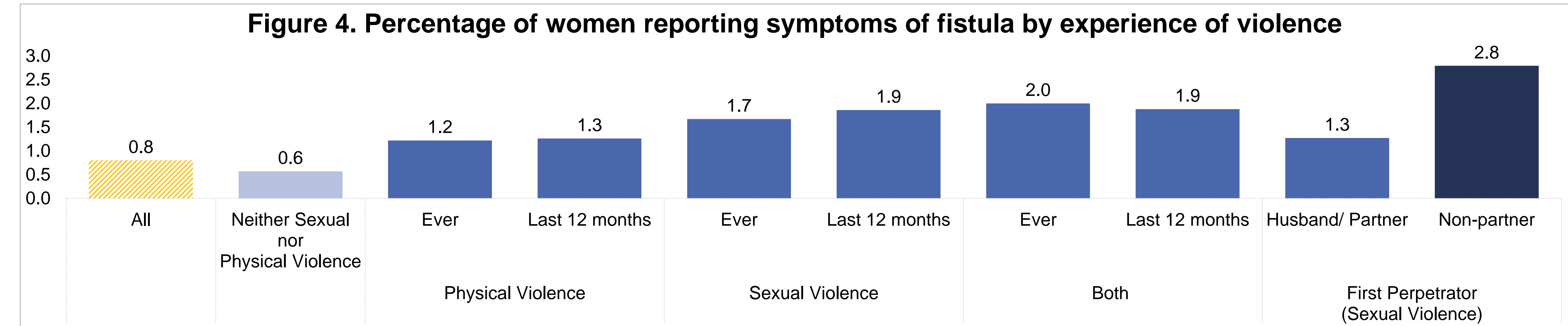
Analysis

- Self-reported symptoms of fistula were examined for potential bivariate relationships with experience of physical and sexual violence.
- Adjusted multivariable logistic regressions were used to test associations while controlling for other factors.
 - Appropriate adjustments for the stratified cluster sampling design
 - Included a fixed effect for each survey to capture variation between countries
- Models examined both ever and recent experience of violence to attempt to examine temporality.

Acknowledgments

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Results



| Variable ³ | Either physical or sexual violence, ever | | Both sexual and physical violence, ever | | Either physical or sexual violence, last 12 months ¹ | | Both types of violence, last 12 months ¹ | | Perpetrator of first act of sexual violence ^{1,2} | |
|--|--|-------------|---|-------------|---|-------------|---|-------------|--|-------------|
| | OR | 95% CI | OR | 95% CI | OR | 95% CI | OR | 95% CI | OR | 95% CI |
| Parity (ref = 0) | | | | | | | | | | |
| 1 to 3 | 2.35** | 1.39 - 3.97 | 2.41** | 1.42 - 4.10 | 2.43** | 1.40 - 4.21 | 2.44** | 1.41 - 4.21 | 2.40** | 1.39 - 4.13 |
| 4 or more | 2.74*** | 1.57 - 4.79 | 2.81*** | 1.60 - 4.94 | 2.95*** | 1.64 - 5.31 | 2.95*** | 1.65 - 5.29 | 2.84*** | 1.58 - 5.10 |
| Terminated pregnancy or stillbirth | | | | | | | | | | |
| Physical violence, ever | 1.52* | 1.04 - 2.22 | 1.55* | 1.07 - 2.26 | 1.61* | 1.06 - 2.45 | 1.65* | 1.09 - 2.50 | 1.58* | 1.06 - 2.34 |
| Sexual violence, ever | 1.55*** | 1.20 - 2.00 | | | | | | | | |
| Both types of violence | 1.86*** | 1.37 - 2.53 | 2.45*** | 1.77 - 3.40 | | | | | | |
| Physical violence, last 12 months | | | | | 1.32 | 0.97 - 1.80 | | | | |
| Sexual violence, last 12 months | | | | | 1.88*** | 1.34 - 2.65 | | | | |
| Both types of violence, last 12 Months | | | | | | | 1.99*** | 1.36 - 2.92 | | |
| Perpetrator of first act of sexual violence (ref = no violence) | | | | | | | | | | |
| Husband/partner | | | | | | | | | 1.55** | 1.13 - 2.15 |
| Non-partner | | | | | | | | | 4.51*** | 2.42 - 8.40 |
| Total Observations | 90,078 | | 90,078 | | 90,056 | | 90,056 | | 81,089 | |

Conclusion

- Women with fistula symptoms report the experience of sexual and physical violence much more often than women without such symptoms.
- Regression analyses show significant associations between self-report of lifetime symptoms of fistula and lifetime experience of physical and sexual violence, as well as recent sexual violence.
 - This suggests that violence may occur before and/or after onset of fistula symptoms.
- Women who were first sexually violated by someone other than a boyfriend, partner or spouse have 4.5 times the odds of reporting fistula symptoms compared with women who have never experienced sexual violence.
- Programs treating and supporting women with fistula must incorporate GBV issues into provider training, discharge planning, and service provision or referral.