

## **Obstetric Fistula in Malawi: Prevalence and Correlates**

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Introduction. Obstetric fistula is a medical condition consisting of an abnormal opening between the vaginal and bladder or between the vagina and rectum, usually resulting from the experience of obstructed labor. It is a condition that is nearly unknown in the developed world, but has devastating effects on the social and economic lives of hundreds of thousands of women in the developing world.

Fistula is a physical disability preventing women from living a normal physical life, both since she is unable to control the leakage of urine, and because fistula is associated with a range of other gynecologic, skeletal, neurologic, and dermatologic morbidities. It consigns the affected woman to a lifetime of social and economic disability if the injury is not repaired. It is most common among those who have the least – the poor, the undernourished, and the underserved.

Some estimate the global prevalence of fistula at about 2 million women worldwide. Ethiopia's fistula hospital treats approximately 700 new patients each year; however, these patients are a select group in that they have found the resources to cover the transportation and other costs associated with the trip to the hospital. Other sources estimate a fistula rate of between 1-3 per 1000 deliveries for West Africa in general, 3.5 for Nigeria in particular, and 5-10 per 1000 deliveries in some rural areas of Africa (Cron, 2003). Fistula is considered representative of a "near-miss" maternal mortality.

Despite the critical importance of the problem of fistula, no national prevalence data have been collected on this condition in any country in the developing world, until recently: the 2004-05 Malawi Demographic and Health Survey included questions intended to assess whether a woman has experienced fistula. This purpose of this paper, therefore, is threefold: first, to document the first effort to collect national prevalence data on vaginal fistula; second, to determine whether the data collected reasonably reflect the prevalence of fistula in Malawi, and third, to determine the risk factors associated with the experience of vaginal fistula.

Data. Data from the 2004-05 Malawi Demographic and Health Survey (MDHS) were used for this analysis. 12,229 women were eligible for interview, and 11,698 were successfully interviewed, yielding a response rate of 95.7 percent.

### Methods.

#### *Data collection:*

Female interviewers were instructed on the purpose of the questions about fistula; if the respondent did not understand the meaning of the question, the interviewer was prepared to explain the disorder in more detail.

For women who have had a child in the past 5 years, the following question was asked about their most recent birth:

After this birth, did you experience a problem such as:

Heavy bleeding?

High blood pressure?

Stroke/convulsions?

Infection/fever?

*Leakage of urine or stool from your vagina?*

Post-partum depression/blues?

All other interviewed women were asked the following question:

Sometimes a woman can have a problem, usually after a difficult childbirth, such that she experiences a leakage of urine or stool from her vagina. Have you ever experienced this problem?

*Analysis:*

Data collection was necessarily limited to asking women about their experience of leakage of urine or stool from their vagina. While interviewers were able to explain to the respondents what a fistula is, the possibility remains that the respondents may have confused the symptoms of fistula with some other condition, for example, the usually temporary urinary incontinence that is sometimes associated with a normal vaginal delivery.

To assess the degree to which the data reflect what we intended to measure, cross-tabulations are done with factors that are known to be associated with fistula: rural residence, poorer economic status, small stature, early age at first birth, assistance at delivery (only for those with a birth in the past 5 years), and experience of sexual violence. It is expected that experience of fistula will be a predominantly rural phenomenon, and will be experienced disproportionately by those in the lower economic strata, those who are short stature, those who were in their teens at their first birth, those without medically-trained assistance at delivery, and those who report having experienced violence.

Risk factors for the experience of fistula are assessed using a multivariate approach.