

# Quantitative Measures of Self-Reported Data on Abortion Morbidity: A Case Study in Madhya Pradesh, India

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Measuring levels of abortion-related mortality and morbidity poses many challenges in the developing-country context. Where abortion is legally restricted or where most legal abortions occur outside the formal health care system, official records of abortion gathered at legal health facilities miss a large proportion of abortions and related morbidity. Stigma surrounding pregnancy termination means that women are reluctant to report abortions on standard population surveys, which also leads to underestimates of the true incidence of abortion (Baretto et al. 1992; Johnston 2002; Rossier 2003). Further, self-reported abortion morbidity can only be measured among women who have survived the abortion attempt and cannot capture the experience of women who die from the most severe complications. Given these challenges, it is not surprising that the published literature on abortion-related morbidity, particularly in developing countries, is slim.

While data on abortion-related morbidity is relatively limited, existing studies examining such morbidity have used a wide range of methodologies. These include small, in-depth qualitative studies with women and health providers (Ramachandar and Pelto 2004); mixed-method approaches with women identified as having had an abortion (e.g., Ganatra and Hirve 2002); facility-based documentation of abortion complications (e.g., Jewkes et al. 2005); surveys of women who have sought reproductive health services at facilities (e.g., Ahmed et al. 1999; Mitsunaga et al. 2005); clinical trials comparing side effects resulting from surgical and medication abortion (e.g., Elul et al. 1999); and global estimations of a given aspect of morbidity, for example rates of hospitalization for complications of induced abortion (e.g., Singh 2006).

## Morbidity Measures

A variety of measures have been used to classify morbidity and its severity, depending on the characteristics of the sample, methodology of data collection and who is reporting or measuring the morbidity (e.g., a clinician versus the woman herself). The measurement of the severity of morbidity in formal health care settings typically is based on clinical observation of well-defined symptoms (for examples, see Jewkes et al. 2005; Rossier et al. 2006). In contrast, measuring the severity of self-reported morbidity, either in qualitative studies or through quantitative surveys, is less clear cut. Asking women to report morbidity in clinically defined terms is often not feasible, as many women never receive formal medical care and among women who do, many may not know the clinical terms for their complications.

Women may also rank severity differently than medical providers and only report what they consider to be “out of the ordinary.” Symptoms that are significant or severe enough to be recalled may also differ across cultures, by urban/rural setting and by whether and how pain is managed (Elul et al. 1999). Further, asking a woman to describe specific symptoms and their duration many years after they occurred may introduce recall error. However, an abortion and any related complications are likely highly significant and vivid events in a woman’s life, which means self-reports of abortion are probably less susceptible to recall bias than are other events.

Studies that have collected self-reported morbidity data typically ask women about a simplified list of clinically defined abortion complications; some also ask about disruption of daily life as a result of those complications. The typical range of simplified “clinical” signs and symptoms reflects the commonly clinically defined complications of unsafe abortion—bleeding, fever, foul smelling discharge, pain, incomplete abortion and trauma/physical damage to the body.

Questions on bleeding generally specify a level of bleeding, either in terms of severity or duration. For example, respondents have been asked about the amount and time frame of bleeding (i.e., severe/profuse or prolonged/continued) (Elul et al. 1999; Ramachandar and Pelto 2004); the number of weeks of moderate to heavy vaginal bleed-

ing (Johnston et al. 2003); and how bleeding compares with menses (greater than, equal to or less than) (Coyaji et al. 2002). Pain is also usually specified, typically in terms of a location (e.g., abdominal, lower back). A few studies ask about weakness and most add a general “other” category. Some ask about timing or duration of complications (Elul et al. 1999; Mitsunaga et al. 2005) and others assess whether the complications occurred at the time of the abortion or within six weeks (Mitsunaga et al. 2005).

Several studies also ask women about disruptions to daily life that result from abortion-related complications (Ganatra and Hirve 2002; Johnston et al. 2003; Ramachandar and Pelto 2004), with only a few studies reporting the actual duration of those disruptions (Ganatra and Hirve 2002; Johnston, 2002; Ved et al. 2003). Typical measures of disruptions to women’s daily lives revolve around the ability to undertake daily activities, such as cooking and caring for children (Elul et al. 1999) or whether the woman had to take bed rest as a result of complications (Ramachandar and Pelto 2004).

While there is similarity in the type of questions asked regarding symptoms or disruptions to daily life, there is no particular uniformity in what is asked and how it is asked. In addition, most studies take only one of the above approaches to measuring morbidity, thereby focusing on relatively narrow definitions and types of morbidity. More exploration is needed of the various measures of self-reported morbidity, how they compare, the advantages and disadvantages of different types of questions, and the essential questions to ask in a survey setting. Gaining a fuller understanding of morbidity by standardizing self-reported morbidity measures is central to comprehending women’s experience of abortion-related complications, designing effective programs and being able to assess these efforts.

### **Exploring Self-Reported Morbidity**

The following section uses a case study from the Indian state of Madhya Pradesh to explore the implications of using different types of self-reported measures on levels and severity of morbidity resulting from abortion complications, for the overall sample and for urban and rural areas. India offers a unique opportunity to gather self-reported data on morbidity because induced abortion has been legal for generally interpreted broad reasons since 1972. However, the majority of women, especially in rural areas, are unaware that the procedure is broadly legal, and the situation is complicated further by onerous facility registration requirements, severely limited access and the widespread persistence of stigma. All this makes safe abortion much less accessible than would be expected in a country where the law allows it for a range of reasons.

As a result, the majority of women who resort to abortion are never seen in the formal and legal health care system, particularly in rural areas.

### **Data**

The data come from a survey conducted in 2002 in both urban and rural areas of Madhya Pradesh (see Edmeades et al. 2010 for more detail on the study). The sample consisted of 2,444 married women aged 15–39 with at least one child. Respondents were selected using a stratified, cluster sampling approach, with urban areas oversampled to enable analyses of differences between urban and rural areas in this predominantly rural state. In addition to gathering information on the characteristics of women and their households at the time of the survey, the survey collected retrospective longitudinal information on every pregnancy, resulting in a data set of 9,127 pregnancies with known outcomes. The survey further collected information on women’s autonomy, household economic status, pressure from family members for continued child-bearing and experience with abortion for each pregnancy.

As described in more detail in Chapter 3 of this volume and in a study by Edmeades and colleagues, the survey relied on an innovative, mixed-method approach designed to elicit higher quality abortion data than is typically the case (Edmeades et al. 2010). In particular, the survey was designed to mimic a “narrative” approach, which is more commonly used in qualitative research and allows women to naturally tell their “story” of each individual pregnancy. The approach was also structured to aid interviewers in developing a good rapport with the women and to use the flexibility of qualitative methods to generate data suited to complex quantitative analysis.

In total, an abortion attempt was recorded in 737 pregnancies (which were contributed by 552 women); because multiple attempts were made in some of these pregnancies, our data set includes information on a total of 1,053 individual attempts. Since our interest is in morbidity associated with abortion attempts, we excluded 87 attempts that involved women whose abortion request was refused and eight attempts where information on morbidity was incomplete; this resulted in a final data set of 958 individual abortion attempts. Moreover, our analysis is based on all abortion attempts, rather than on completed abortions only. (Of the 737 pregnancies for which abortion attempts were made, 67%, or 495, resulted in completed abortions.) A range of data was collected about each of these attempts, including whom the woman consulted, where she went, the advice and/or treatment she received, who paid for the abortion, whether complications developed, and the use of follow-up care and the source of such care.

Different approaches may be used to analyze these

data. Analyses may focus on a single attempt, for example, the last or the first attempt, or draw on multiple attempts among respondents who made more than one to abort a particular pregnancy. Moreover, the analysis may focus only on women who had a complete abortion or include both those whose abortions were completed and those who attempted an abortion but did not succeed. Our approach of including *all* attempts maximizes the information available by using attempts as the unit of analysis. However, the results should not be generalized to all populations, since women who have made more than one attempt may be different in some ways from women who succeeded at their first attempt.

### **Interviewer Training**

The principal investigators conducted two weeks of intensive training, including field practice, with 18 experienced interviewers. The training process was structured around participatory principles, which allowed the interviewers to modify the questionnaire during the process of absorbing its structure and content. Because the questionnaire was administered in a narrative framework and the data were recorded in a survey format, interviewers needed to become skilled in flexibly administering it. This involved encouraging the respondent to tell her personal story while maintaining the recording structure and ensuring that all questions were covered in the course of the narrative. In order to accomplish this, interviewers needed to fully understand the content of the questionnaire, the challenges inherent in collecting abortion data and how the methodology addressed these challenges. Interviewers were also trained on issues of informed consent, confidentiality and the need to work through gatekeepers. Extensive quality control in the field was maintained through constant supervision by an experienced research officer as well as through frequent field visits by senior staff. The interviewers also relied on a training manual developed by the research team as a reference for addressing both complex and simple issues.

### **Review Board Approval**

The study was reviewed and approved by the International Review Boards of the Indian Council for Medical Research and the Government Medical College of Nagpur, following standard submission procedures.

### **Background on Abortion Attempts**

Abortion was common in this sample of women in Madhya Pradesh: Thirty percent of urban women and 21% of rural women had ever attempted to abort at least one pregnancy. Of these women, the vast majority had attempted to abort only one pregnancy, though 22% of

urban women and 17% of rural women had attempted to abort more than one pregnancy. Similarly, most women (75%) made only one attempt to abort a specific pregnancy. Although more than two-fifths (42%) of first abortion attempts for a given pregnancy were initially unsuccessful, a further abortion attempt was made in less than half (47%) of these cases. Of all abortion attempts, 75% of attempts made in urban areas and 59% of those in rural areas ended in a complete abortion.

For each abortion attempt, women were asked to report the provider/place of that attempt and the method of abortion used. The distribution of attempts by provider type varied widely by place of residence: Among attempts made in rural areas, almost half (47%) were made by the woman herself, followed by attempts made by medical (private or public) providers (43%) and nonmedical providers (10%). It should be pointed out that private providers may or may not have been working in legally certified facilities or been adequately trained. By contrast, attempts made in urban areas were primarily made through medical providers (70%), 27% were made by the woman herself and 4% by nonmedical providers.

The distribution of the methods women used in their abortion attempts mirrors the patterns of provider type used by women in our survey. Abortion attempts by urban women were much more likely than those by rural women to involve a medical termination of pregnancy (MTP) (46% vs. 21%). In India at the time of the study, MTPs were primarily restricted to dilation and curettage (D&C). A large proportion of both rural attempts (39%) and urban attempts (30%) involved ingesting pills of some form, though women typically were unaware of exactly what was in the pills. (In this study, the only distinction we could make between pill types was malaria pill vs. other types of pills.) Although medication abortion (mifepristone) was legalized in India in February of 2002 (Duggal 2003), it was neither legal nor readily available in Madhya Pradesh for the bulk of the time period covered by this survey. Abortion attempts among rural women were almost twice as likely as those among urban women (40% vs. 24%) to be made using traditional methods such as herbs, hot food or drink, massage, jumping or falling, and carrying heavy loads. Less than 1% of attempts involved the insertion of an object into the vagina.

### **Measures of Morbidity**

Three different measures of abortion-related morbidity were developed based on the data: symptoms of complications resulting from an abortion attempt, time on bed rest required to recover from these symptoms and a combined variable that incorporated both measures. Each of the three measures is an ordered categorical variable with

three levels of morbidity: none, moderate or severe.

The first measure is built on responses to the question “Did you have any complications/side effects from what you took/had done?”\* The criteria used to assign the level of morbidity as measured by symptoms of complications were the following: *Severe* includes attempts where women reported excessive bleeding together with four or more days of bed rest,<sup>†</sup> an incomplete abortion, infection and/or fever, or damage to the uterus, birth canal or vagina. *Moderate* refers to attempts where women reported excessive bleeding, pain, weakness or other symptoms in the absence of severe complications. *No morbidity* refers to attempts where no complications were reported.

The second measure is constructed from a question that asked whether these complications led to the respondent being bedridden. Specifically, women were asked “Were you bedridden or unable to get up for some period of time because of the complications or side effects? How long could you not get up?”<sup>‡</sup> Abortion attempts that led to four or more days of bed rest were categorized as causing “severe” morbidity; attempts that resulted in between one and three days of bed rest were categorized as resulting in “moderate” morbidity; and those involving no bed rest were categorized as causing “no morbidity.”

Based on the responses to the symptoms and bed-rest questions, a combined measure was constructed. Included in the combined morbidity level of “severe” were both attempts leading to “severe” symptoms and those resulting in “moderate” symptoms but categorized as “severe” in terms of bed rest. The combined “moderate” morbidity classification included attempts ranked as “moderate” on both the symptoms and bed rest–based measures. Finally, attempts where no symptoms of complications were reported and where no bed rest was required were categorized as causing “no morbidity.” The percentage distribution of abortion attempts for each of these measures is shown in Table 1 (see tables at the end

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\*Response categories to this question were the following: no complication pain, excessive bleeding, unfinished abortion, infection/fever, weakness, damage to uterus/vagina/birth canal and other (specify).

<sup>†</sup>Because information on the amount or duration of bleeding was not collected, and classifying severity based on excessive bleeding alone led to classifying as “severe” a significantly higher proportion of abortions performed in government or private clinics than expected, we used the bed-rest measure to help dichotomize excessive bleeding into moderate or severe morbidity. That is, excessive bleeding together with four or more days of bed rest was classified as severe morbidity, whereas excessive bleeding with three or fewer days of bed rest was categorized as moderate morbidity.

<sup>‡</sup>Response categories included the following: no (none), 1 day, 2–3 days, 4–7 days and ≥8 days.

of the chapter).

As the table clearly demonstrates, how we measure abortion-related morbidity can make a substantial difference in how attempts are categorized in terms of the severity of their morbidity. This is important to researchers exploring the determinants and consequences of the morbidity caused by abortion attempts, as the conclusions they reach may differ depending on which measure is used. While the difference between these measures depends to some degree on how they are defined, the results suggest that even though the symptoms and bed-rest measures assess the same underlying morbidity, they capture distinct dimensions of morbidity and both differ from the combined measure.

To illustrate how distinct measures of morbidity influence the conclusions regarding the severity of morbidity and urban-rural differentials, we compared each measure against the others. This process highlights both the benefits and costs of using a combined morbidity measure versus each of its components separately.

## Findings

The findings highlight the variability in the levels of morbidity, the extent of rural-urban differences and the range in the determinants of abortion-related morbidity, depending on the measure chosen.

### Levels of Morbidity

Postabortion complications were common among the sample of women who attempted to abort a pregnancy. Table 2 shows the levels of self-reported morbidity associated with the three different morbidity measures in both urban and rural areas.

Using the measure of morbidity related to the symptoms of complications, approximately 46% of urban abortion attempts and 58% of rural abortion attempts resulted in some level of morbidity (including both moderate and severe morbidity). However, if morbidity is measured by days of bed rest only, the indicated level of morbidity drops to 29% of urban and 38% of rural abortion attempts. This difference in morbidity, of 17 percentage points and 20 percentage points for attempts in urban and rural areas, respectively, illustrates that if morbidity had been measured based on bed rest alone, a significant portion of total morbidity, as measured by self-reported symptoms, would have been missed.

The symptoms and bed-rest measures also perform differently when examining severity of morbidity, with marked differences by area of residence. For example, in rural areas, 29% of abortion attempts resulted in severe morbidity under the symptoms measure, compared with

17% using the bed-rest measure. In urban areas, by contrast, there is virtually no difference between the two measures, as 12–13% of abortion attempts under either the bed-rest or the symptoms measure led to severe morbidity. Use of the combined measure (symptoms and bed rest together) increases the percentage of attempts classified as having severe morbidity in both urban and rural areas, indicating that not all attempts that lead to self-reported severe morbidity using one measure also do so under the other.

Each measure also provides a slightly different picture of moderate versus severe morbidity by area of residence. Under the symptoms measure, the urban-rural differential in severe morbidity is 17 percentage points (12% vs. 29%), but the differential by area of residence in severe morbidity under the bed-rest measure shrinks to just four percentage points (13% vs. 17%). Using the combined measure, the difference in severe morbidity by area of residence is not as striking as under the symptoms measure, but is still large (15 percentage points).

Table 3 provides the cross-tabulation of the symptoms and bed-rest measures, showing their degree of concurrence. Of note is that 5.0% of rural attempts versus 0.8% of urban attempts classified as having severe morbidity when measured by symptoms are classified as having no morbidity using the bed-rest measure. By contrast, 12% of rural attempts and 5.3% of urban attempts that result in severe morbidity based on symptoms are classified as leading to moderate morbidity based on bed rest. Moreover, morbidity for 4.7% of rural attempts and 7.2% of urban attempts is classified as severe under the bed-rest measure, but as moderate by the symptoms measure.

### **Morbidity by Provider and Method**

Table 4 shows the differences between the three measures of morbidity for four types of abortion providers. For nonmedical providers (self and other\*) the symptoms measure categorizes a higher proportion of attempts as resulting in both moderate and severe morbidity than does the bed-rest measure (e.g., among self-induced abortion attempts, 23–24% are classified as moderate or severe under the symptoms measure, compared with 10–14% under the bed-rest measure); the same general pattern holds true for private providers. For abortion attempts that occurred with government providers, however, the symptoms measure yields basically the same proportion

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\*“Other” providers include all traditional abortion providers that do not offer modern medical treatments.

†“Other” abortion methods include a range of nonmedical methods, such as massage, herbal teas and traditional medicines.

causing severe morbidity as does the bed-rest measure (25–26%), even as the symptoms measure continues to generate higher proportions of attempts classified as moderate than does the bed-rest measure (27% vs. 19%). Indeed, the symptoms measure leads to larger proportions of attempts being classified as resulting in moderate morbidity than does the bed-rest measure for all providers, with the exception of those in the “other” category.

An important distinction also exists between the two measures as related to abortion method and associated severe levels of complications (data not shown). For example, surgical abortion attempts (primarily D&Cs) show a much higher rate of severe morbidity relative to attempts made through other methods (ingestion of pills and “other”†) when measured by days of bed rest. However, when measured by symptoms, the percentage of attempts with severe morbidity is roughly the same across abortion methods (25% each of attempts through surgical abortion methods and “other” methods, and 27% of attempts through ingestion of pills). When using the measure combining symptoms and bed rest, surgical abortion attempts also have significantly higher levels of severe morbidity than do attempts using other methods (43% of surgical attempts using the combined measure vs. 28–29% each of attempts involving ingestion of pills or “other” methods of inducing abortion).

## **Challenges in Measuring Abortion-Related Morbidity**

Data on abortion-related morbidity among women who are never seen in the formal and legal health care systems are scarce, as are data comparing the experiences of urban and rural women. We were able to take advantage of a unique population-based data set that allowed for a more comprehensive picture of abortion-related morbidity than is typically available.

There are multiple challenges to measuring morbidity in a general population sample. The first is the typical underreporting of abortion in surveys, which often provide few cases of abortion-related morbidity to examine. While underreporting likely occurred in this survey as well, the narrative approach to data collection used in this study also (see Chapter 3) appears to be stronger at soliciting sensitive information than the more typical survey approaches. For example, this data set yielded a ratio of 5.5 abortions per 100 live births for Madhya Pradesh, compared with a ratio of only 1.2 based on data for the state from the 1998–1999 National Family Health Survey (NFHS-2) (Edmeades et al. 2010). Moreover, 4.7% of pregnancies included in our data resulted in an induced abortion, compared with 1.0% in the NFHS-2 survey data. This far higher level of abortion reporting allowed for a closer look at abortion-related morbidity in

a general population than is often possible.\*

The second challenge revolves around the quality of self-reported morbidity data, especially in terms of how comparable the measures generated are to clinical definitions of morbidity. Retrospective reporting also raises issues of recall bias and causality. However, abortion and related morbidity are likely to be a highly significant event in a woman's life, which potentially lessens the chance for recall error. Moreover, while causality (the link between the abortion attempt and the reported morbidity) cannot be directly proven with self-reported data (as might be the case with provider-reported data), the fact that a woman herself attributes the complications to an abortion is significant and should not be discounted.

The third challenge is the lack of standardized and tested measures for self-reported morbidity. While the literature on self-reported morbidity is not vast, a range of studies have used a variety of methodologies and measures. Most studies ask women about a set of complications, using simplified terms, while a few add in a question about the resulting disruption of daily life. While the questions asked are generally similar, there is no consistency in the language used and the range of symptoms asked about; neither is there uniformity in how the question on disruption of daily life is framed. Moreover, studies have not explored how these two types of measures of morbidity relate to each other, which is a necessary step for moving toward comparable data.

Despite these challenges, our data and approach allowed for an in-depth exploration and comparison of self-reported morbidity as measured by symptoms versus bed rest, and what happens when these two measures are combined. Based on preliminary exploration, some differences between the measures are worth noting. First, the use of a single measure alone—symptoms *or* bed rest—would miss substantial proportions of overall morbidity. Whether that morbidity is classified as moderate or severe, in rural or urban settings, also varies substantially depending on the measure used. In rural areas, for example, a greater proportion of abortion attempts are classified as resulting in severe morbidity using the symptoms measure than the bed-rest measure; however, in urban areas, there is virtually no difference in severe morbidity by the measure used.

The specific measure used (symptoms versus bed rest)

also leads to quite different results with different methods of abortion. For example, the symptoms measure produces similar levels of severe morbidity, no matter the specific method of abortion used. By contrast, when using the bed-rest measure, the proportion of attempts via surgical methods (primarily D&C) that result in severe morbidity is twice as high as the proportion of pill-based and "other" attempts. Potential reasons for this difference may include medical providers prescribing bed rest after a surgical abortion and that women having a surgical abortion likely have more family support which, in turns, enhances their ability to take bed rest after their procedure.

As might be expected, the combined measures leads to higher levels of "severe" morbidity, as it is more inclusive of both the symptoms and bed-rest dimensions of morbidity. However, using the combined measure also obscures important differences between the two types/degrees of morbidity. Overall, the results reveal the complexity of the relationships between abortion and morbidity, and suggest that there is much to be gained both by using two different measures of morbidity and a single measure that combines the two.

Our findings highlight the need to find better ways to capture data on abortion morbidity from samples that are representative of a population of women beyond those who attend health facilities. Further exploration of how to measure self-reported morbidity and standardize measures is needed to support the collection of these data, which are particularly important to understanding how women's lives are affected by the lack of access to reproductive health services in the developing world. Based on the findings presented in this study, we recommend that when collecting morbidity data outside clinical settings, a minimum of two different measures should be used: one that collects information on a set of simplified, self-reported symptoms that reflect clinical signs of abortion morbidity; and a second that captures how the morbidity disrupts women's daily life by asking about bed rest or being unable to conduct daily activities. For both measures, capturing some indication of the duration of the morbidity (e.g., how long a symptom lasted, how many days of bed rest were needed or how long a woman was unable to carry out daily activities) is essential for understanding the severity of the morbidity.

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\*It should be pointed out, however, that our data do not capture the abortion experiences of unmarried and childless women. We did not interview unmarried women, who are known to have high levels of abortion-related morbidity, because pretests showed that induced abortions among unmarried women is too sensitive a topic in the Indian context to produce meaningful data through direct interviews.

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**TABLE 1. Percentage distribution of abortion attempts by level of morbidity, according to measure of morbidity, Madhya Pradesh, 2002**

Level of morbidity	Measure of morbidity (N=958)		
	Symptoms (%)	Bed rest (%)	Combined measure (%)
None	45.9	64.6	45.9
Moderate	30.3	19.8	21.3
Severe	23.8	15.6	32.9
Total	100.0	100.0	100.0

Note: In this and all the following tables, all percentages have been adjusted to account for oversampling in urban areas.

**TABLE 2. In both urban and rural areas, percentage distribution of abortion attempts by level of morbidity, according to measure of morbidity, Madhya Pradesh, 2002**

Type of measure and area of residence	Level of morbidity			
	None (%)	Moderate (%)	Severe (%)	Total (%)
<b>Urban areas (N=514)</b>				
Symptoms	54.3	33.7	12.1	100
Bed rest	70.6	16.2	13.2	100
Combined measure	54.3	22.9	22.8	100
<b>Rural areas (N=444)</b>				
Symptoms	42.1	28.8	29.1	100
Bed rest	61.9	21.4	16.7	100
Combined measure	42.1	20.5	37.4	100

**TABLE 3. In both urban and rural areas, agreement between the symptoms and bed-rest measures in the classification of morbidity level, Madhya Pradesh, 2002**

Symptoms level	Bed-rest measure					
	None (%)		Moderate (%)		Severe (%)	
	Urban (N=363)	Rural (N=275)	Urban (N=83)	Rural (N=95)	Urban (N=68)	Rural (N=74)
None	54.3	42.1	0	0	0	0
Moderate	15.6	14.9	10.9	9.2	7.2	4.7
Severe	0.8	5.0	5.3	12.2	6.0	11.9



**TABLE 4. For four types of abortion providers and overall, percentage distribution of abortion attempts by level of morbidity, according to measure of morbidity, Madhya Pradesh, 2002**

Measure and level of morbidity	Self (n=350) (%)	Government (n=147) (%)	Private (n=396) (%)	Other* (n=61) (%)	All (N=954†) (%)
<b>Symptoms</b>					
None	53.8	48.7	38.3	38.2	46.1
Moderate	22.5	26.6	42.5	17.4	30.2
Severe	23.7	24.8	19.2	44.4	23.8
<b>Bed rest</b>					
None	75.9	54.9	57.2	57.3	64.6
Moderate	14.0	19.1	26.5	20.3	19.9
Severe	10.1	26.0	16.3	22.3	15.5
<b>Combined measure</b>					
None	53.8	48.7	38.3	38.2	46.1
Moderate	20.35	10.0	27.7	11.9	21.1
Severe	25.9	41.3	34.0	49.9	32.9
Total	100.0	100.0	100.0	100.0	100.0

\*By "other" providers we mean traditional providers or family members. †N= 954 because four cases were dropped due to missing data on provider type.

