

## **Determinants of Provider Intention to Offer Medical Abortions in Bihar and Jharkhand, India**

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### **Introduction**

According to the 1998-99 National Family Health Survey, India's annual rate of maternal mortality is 540 deaths per 100,000 live births.<sup>1</sup> A leading cause of maternal deaths, accounting for 12% of the total, is unsafe abortions. In 1972, the Medical Termination of Pregnancy (MTP) Act was adopted in India in response to the high levels of maternal mortality and morbidity associated with illegal abortions.<sup>2</sup> Although the MTP Act legalized abortion under certain social and medical conditions, morbidity and mortality related to unsafe abortions remain a major public health challenge for India even more than three decades later. Annually, an estimated six million induced abortions are carried out, with as many as eight illegal abortions for every legal abortion.<sup>2</sup>

Under the MTP Act, abortion services may be provided only by registered medical practitioners meeting stipulated training and experience requirements at hospitals or clinics approved by the government. Shortages of licensed facilities and practitioners exist throughout India, and their scarcity is especially acute in rural areas despite the fact that three-quarters of the population in India lives in rural areas.

Recent studies conducted around the world, including those conducted in India, show that medical methods of abortion (those using pharmacological drugs to terminate pregnancy) offer a safe, effective and acceptable alternative to surgical abortion.<sup>3-5</sup> In both developed and developing countries, the current suggested regimen consists of 200mg of mifepristone followed by 400µg of oral misoprostol two days later for gestations up to 9 weeks.<sup>6</sup>

Medical abortion using a regimen of mifepristone coupled with misoprostol was legalized in India in April 2002 and provides an opportunity to expand women's service options for safe abortions. Studies in India have shown that medical abortions are not only feasible but are also safe and acceptable for women living in both urban and rural settings.<sup>7,8</sup> In a country like India where abortion morbidity and mortality are high and the health infrastructure does not allow for easy access to safe surgical abortions, medical abortion has the potential to greatly improve abortion safety and access. While various studies have found medical abortions highly acceptable by women in different countries,<sup>3,4,7</sup> only a handful of studies have looked at provider knowledge, attitudes and practices regarding medical abortion.<sup>4,9</sup> None of the published studies surveying providers have taken place in India. Understanding the knowledge, attitudes

and practices of providers is necessary as providers have a significant role in impeding or easing the access women have to safe abortion services.

The north Indian states of Bihar and Jharkhand have some of the highest maternal mortality and morbidity rates in India, yet have limited facilities offering surgical abortion services. Bihar and Jharkhand have high rates of illiteracy, child and maternal mortality, and poverty. Nearly 90% of the combined population of the two states live in rural areas.<sup>1</sup> Bihar and Jharkhand have among the highest induced abortion rates in the country.<sup>10</sup> The state of Bihar has split into the states of Bihar and Jharkhand in 2000.

Using data from a survey of family planning providers in Bihar and Jharkhand, India, the determinants of provider's intentions with regards to medical abortion provision are explored. In particular, this paper addresses the questions: What are the different types of family planning providers' (OB/Gyn physician, other type of physician, nurse, midwife, other) intentions with regards to providing medical abortions? What provider level factors are associated with their intentions to provide medical abortions? Answering these questions is particularly relevant taking into consideration the recent legislative efforts by the government of India to expand access to abortion services. This paper will add to the knowledge needed to direct effective measures to improve the access women in India have to adequate abortion services. A better understanding of how to improve women's access to safe abortion care in India can ultimately help reduce maternal mortality and prevent negative health outcomes related to unsafe abortions

### **Conceptual Framework and Theory**

The conceptual framework for this study is based on the Theory of Reasoned Action and the Theory of Planned Behavior. The Theory of Planned Behavior combined with the Theory of Reasoned Action state that a person's intention to perform or not perform a behavior serves as the immediate determinant of the action. The behavioral intention has two main determinants: attitude toward the behavior and the subjective norm. The main concepts applicable to this study are the attitude toward the behavior (opinions with regards to abortion) and intention to perform (intention to provide medical abortion), the main outcome measure in this study.

### **Data**

Data were collected in the states of Bihar and Jharkhand located in North India. The study author developed a module of questions to determine the knowledge, attitudes, and practices of health care providers in Bihar and Jharkhand with regard to the use of mifepristone-misoprostol for medical abortion. This set of questions was added in March 2004 to a health facility staff questionnaire used in the second

phase of an evaluation study, Evaluating Alternative Business Models for Family Planning Service Delivery (ABM) headed by Amy Tsui, PhD, Johns Hopkins Bloomberg School of Public Health. Between May and August 2004 surveys of health facilities, their health staff, and clients were conducted in Bihar and Jharkhand. A multistage cluster sample design was applied to the entire area making up the former state of Bihar except for some southwest districts that were politically unsafe for fieldwork. Districts within the state's six regions were listed and two were selected probability proportional to size (PPS) for each. The district was then divided into urban and rural strata and within the rural strata, into villages. Villages were selected with PPS, and all contiguous villages surrounding the index (selected village) were identified. All health facilities in the cluster of villages were selected into the sample. In the urban stratum, the ward containing the district capital was selected with unity and two other wards were randomly selected. Ward clusters were formed with the selected ward and the surrounding contiguous ones. All health facilities within the ward clusters were selected for a final sample of 1,341 facilities. All health staff in the facilities were enumerated and all authorized to provide family planning services were interviewed if present; the achieved sample size was 2,455 staff. The health facility staff questionnaire documented family planning provider's sociodemographic characteristics, provider training experience, training quality, referral behaviors, knowledge of abortion legislation, attitudes towards abortion, preferences for who should be providing abortions, and abortion related practices.

## **Methods**

Univariate and bivariate analyses are conducted with all variables. To address the research question, a statistical model is estimated using logistic regression. All independent variables significant in the bivariate models are included in the multivariate model. Variables that are not significant are eliminated. Results from both full and reduced models are presented. Data are analyzed using STATA 8.0 statistical software.

The outcome variable of interest is intention to provide medical abortion. Intention to provide medical abortion is determined using the question: "How likely are you to provide mifepristone-misoprostol for MTP (medical termination of pregnancy) in the next year? Would you say you are very likely, somewhat likely, or not likely". Logistic regression is used to identify provider characteristics associated with the probability of providers' intention to provide medical abortion. The independent variables of interest in the analyses are: provider's gender, provider's age, provider's education, location (urban/rural), type of provider (OB/Gyn physician, other type of physician, nurse, midwife, other) type of health facility employed at (government, private, NGO, other), familiarity with pharmacological drugs' use in abortion provision (very familiar, somewhat familiar, not familiar), years providing family planning services, and opinion towards abortion. This study will report descriptive findings regarding

family providers' knowledge, attitudes and practices related to medical abortion provision and the determinants of providers' intentions to provide medical abortion in Bihar and Jharkhand, India. The results will add to the knowledge necessary to direct effective measures expand abortion services and improve access for women in this region of India.

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