

Abortion Service Provision in South Asia: A Comparative Study of Four Countries

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Research article

Keywords: Abortion, quality of care, access, pregnancy, maternal health

Posted Date: September 4th, 2019

DOI: <https://doi.org/10.21203/rs.2.13901/v1>

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Version of Record: A version of this preprint was published at Contraception on September 1st, 2020. See the published version at <https://doi.org/10.1016/j.contraception.2020.05.015>.

Abstract

Background Safe abortion services are essential if women are to fulfill their right to have the number of children they want, when they want them. This paper examines the provision of abortion and menstrual regulation (MR) services in four South Asian countries that have many commonalities in sexual and reproductive outcomes and in barriers to accessing needed services, despite variation in their abortion laws –Nepal, India (six states), Bangladesh, and Pakistan. **Methods** Using representative health facility surveys, we assess availability of legal abortion/MR services –relevant in three of the countries—and post-abortion care, relevant for all four countries. We examine the role of the public sector in providing these services and the proportion of facilities located in rural areas, as indicators of service accessibility for poor and rural women. We assess quality of abortion care through selected indicators: provision of WHO-recommended methods, vacuum aspiration (VA) and medication abortion (MA); use of outdated, invasive methods such as dilatation and curettage (D&C); and the proportion of facilities turning away women seeking services. **Results** Results show that in India and Nepal the majority of public sector facilities do not provide induced abortion services, and in India and Pakistan, the majority of facilities providing any abortion services are private sector. Further, although all four countries are mostly rural, the majority of facilities providing abortion services are located in urban areas. While facilities that provide abortion services already commonly provide MA in Nepal and India and increasingly offer MRM (MR with medication) in Bangladesh, D&C is over-used in all four countries for PAC and in India for induced abortions as well. **Conclusion** There is an urgent need to expand and improve provision of abortion and post-abortion care to reduce abortion-related morbidity and mortality and to fulfill the rights of all women to quality sexual and reproductive health care.

Background

Safe abortion services are an important component of the package of essential sexual and reproductive health services that enables women to fulfill their human right to have the number of children they want, when they want them (1). The absence of these services results in women being forced to access unsafe abortion services, and has a significant impact on their well-being, health and survival (2). Laws that permit abortion under broad criteria establish a favorable context for providing these services, and increasingly, even in countries with highly restrictive abortion laws, clandestine access to affordable medication abortion drugs has become increasingly prevalent (2).

This paper examines the provision of abortion services in four countries of South Asia that have strong commonalities regarding unintended pregnancy and abortion—Nepal, India, Bangladesh, and Pakistan—despite variation in their laws and policies related to abortion. Induced abortion services are, in the large majority of cases, sought in response to an unintended pregnancy. In Pakistan, about 46% of all pregnancies are estimated to be unintended, in Bangladesh and India, 48% are unintended and in Nepal, 50% are unintended, (3–6). As a result, regardless of abortion laws and policies, abortion is prevalent in all four countries: The abortion rate ranges from 39 per 1000 women ages 15–49 in Bangladesh,

combining MR procedures and abortions (5), to a rate of 42 in Nepal (3), 47 in India (6) and the highest at 50 in Pakistan (4).

While the factors that contribute to unintended pregnancy are many, one important factor, unmet need for contraception, is substantial in all four countries. The percent of married women of reproductive age who are not using any method of contraception and also say that they do not want another child soon, is 12% in Bangladesh, 13% in India, 19% in Pakistan and is highest in Nepal at 24% (7–10). In addition, many women use traditional methods of contraception that have relatively high failure rates, which can also lead to unintended pregnancies: about 8–9 % of currently married women do so in Bangladesh, Nepal and Pakistan, and 14–15% do so in Assam and Uttar Pradesh, though this practice is much less prevalent in the other four states of India (1–4%). Over the past decade, the proportion of married women who are using modern contraceptives has increased slowly in Bangladesh, hardly at all in Pakistan, and has been stagnant in India and Nepal.

Abortion has been legal in Nepal since 2002 under broad criteria, with no restriction as to reason up to 12 weeks gestation, and up to 28 weeks gestation if the pregnancy resulted from rape and incest or if the woman suffers from HIV or other similar types of incurable diseases; it is also permitted with an approved medical practitioner's recommendation if the pregnancy poses a danger to the woman's life or her physical or mental health or if there is a fetal abnormality (11). Abortion is also legal in India since 1971 up to 20 weeks gestation under broad criteria including socio-economic grounds, but not without restriction as to reason (12). Abortion is highly restricted by law in Bangladesh with the procedure being permitted only to save the life of a woman (Government of Bangladesh, 1973). However in Bangladesh, an authorization permits menstrual regulation (MR), a procedure to establish non-pregnancy that is conducted using vacuum aspiration (or more recently, medication abortion) (13). MR services were first introduced in 1974 on a limited scale and are now available nationally, through the Government's family planning program. Currently, MR is permitted up to 12 weeks' gestation when provided by a physician and up to 10 weeks when provided by a paramedic (14). In Pakistan, although the law is potentially open to broad interpretation - in more specific terms, abortion is permissible for saving the mother's life or to provide necessary treatment (Government of Pakistan, 1990).

Although legal or policy criteria permit provision of safe abortion or MR services in three of the study countries (India, Bangladesh and Nepal), access to these services is in practice limited, and as a result, legal and safe services coexist with use of illegal abortion services, which are often unsafe. In Pakistan, despite the highly restrictive law, abortion services are being delivered mostly in the private sector in settings that range from safe to very unsafe (4). Given that unsafe abortion is prevalent in all four countries, post abortion care to treat complications from unsafe abortion is also an important component of sexual and reproductive health care in these countries, in addition to safe abortion or MR services. These four countries also share some similarities in the structure of public sector healthcare provision, the importance of the private sector, and also in attitudes and values that constrain abortion service provision from both the supply side (providers and government) and the demand side (women, their families and communities). All of these factors make comparison of these four countries useful.

Based on representative surveys of health care facilities in the four study countries, this article assesses provision of safe and legal abortion/MR services—relevant in three of the four countries—and post-abortion care, relevant for all four countries.^a These surveys used comparable methodologies and were fielded over the years 2012–2015, providing recent evidence on a poorly documented aspect of healthcare. We set the context for assessing service provision by comparing legal and illegal abortion incidence, and the rate of treatment for complications across these settings. We discuss evidence on access to abortion services: the extent to which facilities provide both safe abortion/MR and post-abortion services; the role of the public sector in providing these services; the proportion of facilities that are located in rural areas; and the extent to which all women seeking abortion/MR are able to access care and those turned away and the reasons facilities' give for turning women away. We assess the capacity of facilities to provide safe abortion services, specifically medication abortion (MA) or menstrual regulation with medication (MRM), vacuum aspiration services, and the proportion of post-abortion care done using procedures not recommended by WHO (dilatation and curettage (D&C)).

DATA SOURCES

The data used in this paper are from Health Facility Surveys (HFS), conducted in Pakistan (2012), Bangladesh and Nepal (2014), and in six states of India (2015). These surveys were conducted as part of larger studies for estimating abortion incidence (3–6).

The samples for each of these surveys represent public and private sector facilities with the capacity to provide induced abortion (India and Nepal) or menstrual regulation (Bangladesh) and/or post-abortion care (PAC, all four countries). Multistage, stratified random sampling designs were used, permitting estimates that are representative of each country or state (in the case of India). The samples of facilities were stratified by ownership (public/private including NGO) and represented the range of types of facilities in the public and private sectors capable of providing abortion-related care. Detailed information on sample design is available in published studies (3–5,17).

While the HFS surveys covered representative samples in each context, a few variations in sample design affect comparability of some of the data. Due to the lack of comprehensive lists of private facilities in India, a mapping exercise was carried out in the six study states (Assam, Bihar, Gujarat, Madhya Pradesh, Tamil Nadu and Uttar Pradesh) to develop a known universe of private facilities that provide or have the capacity to provide abortion-related services (17). Although this exercise reliably captured private facilities currently providing abortion-related services, it may have unintentionally excluded some facilities that had the capacity to provide these services but were not currently doing so. A similar consideration also applies to Pakistan: the sample of private sector facilities did not include all facilities capable of providing post-abortion care services. Therefore, results presented on the six states of India and for Pakistan focus only on those private facilities that reported providing abortion-related services. A different consideration affects the data for Bangladesh. A large category of facilities called the Union Health and Family Welfare Centers (UH&FWCs) are permitted to provide MR, but not PAC, given their

staffing capacity. These facilities are included for analyses of MR services and excluded from the denominator for analyses of PAC service provision.

Across all four countries, the HFS survey collected data using a structured questionnaire that was administered in face-to-face interviews with senior healthcare professionals working in sampled facilities, who were knowledgeable about the facility's provision of abortion-related services. Data were collected on characteristics of the facility and its capacity to provide post-abortion care, as well as its capacity to provide induced abortions in India and Nepal and MR in Bangladesh. Respondents were also asked to estimate the caseloads for induced abortion (MR in Bangladesh) and post-abortion care, and about a few key aspects of provision of these services.

Overall, the HFS in the four countries collected comparable data on a number of aspects of abortion and PAC service provision. However, because the surveys were administered in different policy and service provision contexts, there are a few differences in the data collected that limit comparability on selected indicators. For example, in Bangladesh, MR procedures are permitted only in the first trimester, so the issue of second trimester MR services does not apply; data were not obtained on procedures typically used for second trimester abortion (Dilatation & Evacuation (D&E) and Dilatation and Curettage (D&C)). And, although data were obtained on the type of procedure used for MR (manual vacuum aspiration (MVA) and medications used to conduct an MR (MRM)), because MRM was only approved in 2013, the year in which the survey was fielded, the situation of MA/MRM use is not comparable with that of India and Nepal where the drugs have been available much longer. Another variable that is not entirely comparable is reasons why women seeking induced abortion (or MR in the case of Bangladesh) were turned away: while all three of the countries for which this issue is relevant included questions on the topic, some responses were tailored to specific concerns in each country. This analysis focuses on key reasons that are common to the three countries.

Difference in question wording also affects comparisons across countries. In the case of India, multiple responses were obtained to the question on procedures used to treat post-abortion patients. For Nepal, Bangladesh, and Pakistan, the question asked about the main treatment or procedure used, summing to 100%; and for Nepal and Bangladesh, respondents were asked about treatment for patients with incomplete abortion specifically, not about all PAC patients.

Therefore, due to these limitations, data must be omitted for particular countries for some comparisons; where differences exist but comparisons are still feasible, such differences are discussed.

Methods

We conducted original analyses of the HFS tool to assess aspects of provision of abortion and MR services, and the provision of post-abortion care. Data presented include distributions of women receiving services according to characteristics of the facilities. Analyses that take into account sector (public and private) and location of the facility (urban and rural) are also presented. All HFS data presented are weighted estimates. In addition, we draw on published estimates information to contextualize findings on

service provision: incidence of abortion and MR; proportion of pregnancy terminations that are legal; and incidence of treatment for complications.

Results

Incidence of legal and illegal abortion and menstrual regulation

Three of the countries in our study have laws or policies that permit induced abortion (India and Nepal), or MR (Bangladesh). Procedures that meet each country's legal criteria for these services (approved providers and facilities) account for a minority of all abortions in India and Nepal. This proportion was higher in Nepal (42%) than in India (an average of 22% among the six states, ranging from 11% in Uttar Pradesh to 32% in Tamil Nadu). In Bangladesh, of the combined total of MRs and induced abortions, MR procedures provided in facilities by trained providers accounted for 26%. Most abortions in Pakistan would be classified as unsafe.

Abortions that are not provided by approved providers vary in safety, depending on the provider and method used. Although comprehensive data are not available on type of provider and method, there is some evidence that increasing proportions of women use medication abortion outside of facilities, purchased from informal sources in India, Pakistan, and Nepal, marking a shift toward safer illegal abortion compared to the past (18–20). Using the new three-category spectrum of abortion safety (21), the majority of illegal abortions in these three countries are likely to fall into the middle category of “less safe” because they use an approved method (medication abortion) although the source of the method is the informal sector, and not legally approved. An unknown proportion of abortions would be considered “least safe,” those that use unsafe methods administered by untrained providers.

Treatment for abortion complications

In order to understand gaps in access to safe abortion services (or MR services in Bangladesh) and post-abortion care (PAC), we examine the extent to which women are being treated for abortion complications. The treatment rate—the number of women treated in facilities for induced abortion complications each year per 1000 women of reproductive age (15–49)—is a useful indicator of the incidence of abortion-related morbidity.^b In countries where abortion is severely legally restricted, the treatment rate ranges typically between 5 and 10 per 1000 women (22).

Bangladesh and Nepal had the lowest treatment rates at 6 and 8 respectively, while Pakistan had a rate of 14. In India, the treatment rate varied by state. It was lowest in the states of Gujarat (4), Assam (6) and Tamil Nadu (7); intermediate in Bihar (11), and very high in Uttar Pradesh (21) and Madhya Pradesh (26) (23–28). The rates for the six states of India do, however, need to be interpreted with caution because additional data collected only for these states suggest that a large proportion of post-abortion patients

presented with incomplete abortions related to use of medication abortion. Some, possibly a high proportion of these women, may not have needed treatment as their abortion was in progress and would have resolved safely without further intervention. Nevertheless, in all four countries, increased self-use of medication abortion is likely to have reduced the severity of abortion complications and reduced the need for treatment compared to the situation before widespread use of medication abortion. On the other hand, treatment rates usually underestimate abortion-related morbidity because some women who need treatment do not obtain it (2).

Access to abortion services

In order for women to receive legal induced abortion or MR services—relevant in three of the four study countries—access to properly capacitated health facilities is critical. Results show that provision of induced abortion services (or MR in Bangladesh) fall short of what is needed.

In Nepal and five of the six Indian states, between 50% and 71% of all facilities that provided any abortion service provided *both* induced abortions and PAC; however, in Bangladesh and Uttar Pradesh, the proportion providing both services was notably lower (just under 40%). A small proportion of facilities in all three countries provide only induced abortion (or MR in Bangladesh). Among Indian states, the lowest proportion of facilities providing induced abortion services was reported in Uttar Pradesh, where only 41% of facilities said they provided this service. A substantial proportion of facilities that offer some abortion care provide only PAC: this proportion ranges from 32% in Nepal to 61% in Bangladesh and has a similar range across five of the six states of India (ranging from 30% in Assam to 59% in Uttar Pradesh). In Tamil Nadu, this proportion is very low (11%).

Public sector access: A majority of facilities providing MR services in Bangladesh and induced abortions in Nepal were public-sector facilities (60% and 70% respectively). However, when we examined the proportion of public facilities with the mandate to provide such services that were actually providing these services, we found that only 38% of public facilities in Nepal provided induced abortions. This indicates that in Nepal, there is great potential to expand provision of abortion in the public sector.

Examining the Indian states for which we have data, in Assam, over half of facilities providing induced abortion services were in the public sector; however, in other states only a minority of facilities providing these services were in the public sector, ranging from 12% in Bihar to 23% in Madhya Pradesh. This indicates that the private sector has a dominant role in facility-based abortion service provision across the country in five of the six Indian study states. In a similar pattern to that found in Nepal, the proportion providing abortion services among all public sector facilities that are permitted to provide this service is very low across all six study states in India. Madhya Pradesh has the highest proportion of public sector facilities providing induced services (36%), while Bihar and Uttar Pradesh have the lowest proportions (11%).

The role of the public sector in the provision of PAC services is similar to that for provision of induced abortion services in Nepal and the six Indian study states. Public facilities were strongly represented among all PAC-providing facilities in Nepal, indicating the smaller role played by the private sector. However, as with induced abortion service provision, less than half of all public facilities in Nepal that have the potential to provide PAC, actually did so. Among five of the six Indian study states, public sector facilities were the minority among facilities that provide PAC (14% to 29%), and only in Assam were they a majority (60%). Of public facilities which are potentially able to provide PAC, the proportion that did so was a minority in five of the six study states, the exception being Madhya Pradesh, where the majority did so (62%). The situation in Bangladesh was somewhat different with respect to provision of PAC services: the public sector had a much smaller role in providing PAC services (32% of all PAC-providing facilities were public sector) while almost all public sector facilities that are permitted to provide PAC do provide this service.

Even in Pakistan, where the public sector is mandated to provide PAC, public sector facilities make up a minority (37%) of all facilities providing this service and only about a quarter of public-sector facilities that have the capacity to do so (26%) provided PAC services. Similar to the situation in India, this indicates that the private sector has an important role in providing both abortion and PAC services in Pakistan.

Rural access: The distribution of facilities providing induced abortion and PAC services between rural and urban areas is important for gauging access to abortion services in South Asia, since the majority of the population, including the majority of the population of reproductive-age women in all four South Asian countries, reside in rural areas (7–9,29).

In Bangladesh, 60% of MR-providing facilities are located in rural areas, while 72% of reproductive age women live in rural areas. Similarly, in Nepal, a majority of facilities providing induced abortions were located in rural areas (57%). In India, however, a minority of facilities providing induced abortion services were in rural areas, while the majority of women in five of the six states live in rural areas (7). In Tamil Nadu, although 49% of women live in rural areas, only 5% of facilities that provide abortion services are located in rural areas. These sharp imbalances in favor of urban areas indicate that in India, rural women have much poorer access to abortion services, compared to urban women.

The concentration of services in urban areas also exists in access to PAC services in the six Indian states, with a majority of PAC-providing facilities located in urban areas. The situation is similar in Pakistan and is even more extreme in the case of Bangladesh where 7% of facilities that provide PAC are located in rural areas but 72% of women are rural residents. In contrast, in Nepal, a higher proportion of PAC-providing facilities are in rural areas (60%) than the proportion of women living in rural areas (37%).

Turn away of women seeking abortion or MR services: This issue is relevant for three of the four study countries—with respect to abortion services in India and Nepal and MR services in Bangladesh. Even when women are able to find a facility approved for induced abortion service provision or for MR, access to induced abortion services is often hampered by facilities turning women away. Similar levels of

women seeking an induced abortion were turned away in Nepal, Bangladesh, and four Indian states. The exceptions were the Indian states of Assam and Gujarat, where much lower proportions of women were turned away (6% and 8%, respectively).

Some of the reasons women are turned away are understandable. In Bihar, Uttar Pradesh, Madhya Pradesh and Nepal, between 28% and 56% of facilities turned away one or more women for suspicion of wanting sex-selective abortion, a practice that is illegal in India, and about 63% facilities in Nepal turned some women away because the pregnancy was above nine weeks gestation, which suggests that these are facilities that only offer medication abortion (data not shown). In Bangladesh, 97% of facility respondents reported that some women were turned away because they exceeded permitted LMP limits (data not shown), which is consistent with the relatively low LMP limits permitted for MR procedures. In Nepal, Bangladesh and Assam, 65% or more facilities cited unspecified medical reasons for turning women away, which may include the facilities lack of capacity to provide second trimester services; in other Indian states, this proportion was lower but still substantial, ranging from 19% in Madhya Pradesh to 28% in Bihar.

However, a substantial proportion of facilities reported turning away some women in the six Indian states who were otherwise eligible to receive abortion services, for reasons such as being too young, unmarried, or not having had any children. Among these states, this proportion ranged from a high of 54% in Assam to 22% in Tamil Nadu. About 35% of facilities in Bangladesh reported turning away women seeking MR for these types of reasons, while in Nepal over half of facilities reported turning away some women seeking abortion services for being too young.

Capacity of facilities to provide surgical and medication procedures

In Nepal and the six Indian study states, the large majority of facilities that provide induced abortion (including public facilities) provided medication abortion. In Bangladesh, however, provision of MRM (MR done using medications) was very low—21% of MR-providing facilities offered MRM, and this proportion was 14% among public facilities. This is likely due to the recent timing of adoption of MRM, which was authorized in late 2013, just months before the HFS was conducted.

We also assessed the capacity of facilities to provide surgical procedures. In Bangladesh, Nepal and four of the six Indian study states, more than three-quarters of all facilities that provide abortion services (MR in the case of Bangladesh) had the equipment and trained staff to provide vacuum aspiration (between 74% and 93%). In Tamil Nadu, however, fewer than half of all such facilities (public and private combined) had this capacity; nevertheless, it is notable that 83% of public facilities that offer abortion care in this state had trained staff and equipment to provide vacuum aspiration, suggesting that public facilities are more likely to provide abortions using vacuum aspiration than private facilities. In Uttar Pradesh, only 44% of public facilities that provide abortion services reported having the equipment and

trained staff to provide vacuum aspiration. However, given that 54% of all facilities in the state that offer abortion services reported having equipment and trained staff to provide vacuum aspiration, it would appear that the private sector is better equipped and prepared than the public sector to provide vacuum aspiration procedures. Another factor that likely contributes to this differential is that private facilities are more motivated to provide surgical abortion than medical abortion, given that the high cost of MA pills.

Use of appropriate procedures: Quality of abortion care

The procedures used for induced abortion and post-abortion care are useful indicators of the quality of clinical care. WHO guidelines recommend the use of medication abortion or vacuum aspiration for first trimester abortions, while D&E is recommended only for second trimester procedures (30,31). D&C is considered to be an outdated and invasive technique and is no longer recommended by the WHO as an abortion procedure.

In order to assess the quality of induced abortion services, we compared data from India and Nepal only. This is because in Bangladesh MR is permitted only in the first trimester and the use of medication abortion was very new at the time of survey; and the topic is not applicable for Pakistan, where abortion is highly legally restricted. The data show that of all induced abortion procedures provided across the six Indian states and Nepal, over half were done by surgical methods. In Nepal, the overwhelming majority of surgical abortions used vacuum aspiration (92%; calculated from data in Table 7).^c In contrast, the proportion of abortions using vacuum aspiration in the six Indian states was smaller, and use of invasive D&C or D&E procedures was much higher compared to Nepal.

In Tamil Nadu and Uttar Pradesh, about 64% of all surgical abortions used D&E or D&C,^d and the proportion was also high in Bihar, Gujarat, and Madhya Pradesh (42–47%; calculated from data in Table 7) (23–28). The proportion of *all* facility-based abortions performed by D&E or D&C procedures range from 25% to 37% in the six Indian study states, providing a strong contrast with the much lower proportion of facility-based abortions that were second trimester (4%–13%, data not shown): This finding strongly suggests that D&E or D&C procedures were often used for first trimester abortions. Inappropriate use of invasive surgical methods appears to be common in the six states of India (20).

Between 41% and 45% of abortion procedures in health facilities in four of the six Indian study states and Nepal, used medication abortion. However, in Assam, only 13% of procedures were done by medication abortion, even though 84% of facilities that offer abortion services report that they provide medication abortion.

The procedures used for provision of PAC are harder to assess across countries, since the data are not entirely comparable. In Bangladesh and Nepal, the survey asked specifically about procedures used to treat patients with incomplete abortions, whereas in India and Pakistan, the data were obtained on

procedures used to treat patients with the full range of post-abortion complications. Further, in Pakistan, information was obtained on the main procedure used (summing to 100%), and in India, data were obtained on all procedures and treatments that patients received, and some more than one type of procedure or treatment. Because of these data constraints, we have restricted our comparison of PAC care across countries to the proportion of procedures that use D&C or D&E. It is important to compare countries on this dimension since these are invasive techniques, and our examination of induced abortion procedures used in Nepal and India shows that these invasive methods are overused. In Nepal, D&C or D&E procedures were used in a small minority of cases to treat incomplete abortions (about 8%). In Bangladesh, 33% of incomplete abortions were treated using one of these two procedures.^e D&C or D&E procedures were used in treating over half of women with post-abortion complications in Pakistan and the Indian states of Assam and Bihar. In Gujarat, Tamil Nadu and Uttar Pradesh, close to a third of patients with post-abortion complications were treated with D&C or D&E.^f

Discussion

The goal of the paper is to comparatively assess gaps in the provision of abortion and MR services and post-abortion care in South Asia in order to inform policies to improve provision of these services that have the potential of benefitting women's sexual and reproductive health. Despite important differences in legal contexts among the four countries covered by this study, and limitations in comparability of available data, commonalities in gaps are evident and form a strong basis for providing guidance to policymakers. In the two countries which allow abortion under broad legal criteria (India and Nepal) and a third country that permits menstrual regulation procedures (Bangladesh), only a minority of women obtaining abortions or MR procedures use approved, safe services. Inadequate access to abortion or MR services, especially in the public sector, drive many women to seek services elsewhere, either from private-sector providers or from untrained providers in the informal sector. Inadequate access to public sector services in rural areas means that rural women in particular are put at risk, given the concentration of private-sector services in urban areas, a pattern that is strongest in the six Indian study states. The private sector is filling an important gap in this domain, among women who can afford it, and it may be preferred as it is perceived to provide higher quality services, especially with respect to confidentiality and lower likelihood of delays in obtaining services. However, even when services exist and women make it to those facilities, it is notable that substantial proportions of women are turned away either because providers are unaware of the law or because they use subjective criteria outside the bounds of the law when determining who they will serve. Providers mentioned turning away some of the most vulnerable women—young, unmarried and those who have not yet a child. Addressing provider stigma around providing safe abortion and MR to all women in need of abortion and MR care to the fullest extent permitted is urgently needed.

PAC treatment rates are relatively high in Pakistan (14), as may be expected in a country that has a highly restrictive abortion law—this suggests that not only are unsafe abortion levels high, but that access to health facilities is good. However, PAC treatment rates in three of the Indian states are also relatively high

(11–26). This is likely related to the large majority of abortions being self-administered using medication abortion drugs, combined with a widespread pattern of women with medication abortions in-process obtaining treatment in health facilities, although they are likely not in need of post-abortion care. The fact that these women are seeking out services after taking medication abortion points to inadequate information and counseling on self-use of medication abortion, a point that has been documented by others (32). Just as with provision of safe services, public sector facilities are not fulfilling their mandate of providing PAC to all women who need it. Again, rural women are the most affected by this shortfall since the public sector is the primary source of medical care in rural areas.

Given the high level of unmet need for contraception (between 12–24% among currently married women of reproductive age) and resulting high levels of unintended pregnancy as reflected in the rate of induced abortion and MR procedures in these four countries, improvements in contraceptive counseling and services are urgently needed. Improving women's access to a range of effective methods, including long acting reversible methods, and improvements in the quality of contraceptive care would contribute to closing the gap in unmet need. Systematic provision of family planning services as part of comprehensive abortion care—either when women engage with the health facility to obtain an abortion or an MR procedure, or as an essential component of post-abortion care—has the potential to reduce future unintended pregnancies.

Expanding access to safe abortion or MR services, particularly in the public sector and at primary level health facilities, is urgently needed as these are the facilities providing services to the most vulnerable women—those who are poor and those who live in rural areas. Given that facilities that are providing PAC are equipped to provide safe abortion or MR services, they could begin to provide safe abortion or MR with their existing infrastructure and staffing. Bangladesh has been more successful at providing safe MR services in public sector facilities than its neighbors; lessons learned in Bangladesh could inform how to expand public sector provision in India, Nepal and Pakistan. Another important expansion of service provision needs to be in the types of health professionals who are permitted and trained to provide abortion-related services as this would greatly increase access. Mid-level providers are permitted to provide abortion services in Nepal and MR services in Bangladesh. It has been shown that these mid-level professionals can safely provide first trimester services (33).

The private sector is performing an important role, filling gaps in abortion and MR services and post-abortion care. More needs to be done to strengthen private sector provision of these services. In India, strengthening the processes and the administrative bodies that are responsible for registration of private health facilities to provide abortion services is needed. Existing mechanisms to do so are currently not functioning well in many parts of the country. Registering private facilities would expand capacity to provide abortion services and it would also allow for better monitoring and assessment of these services, and for facilitating improvements in data collection systems.

Capacitation through improved access to necessary equipment and supplies in both sectors would address another barrier currently preventing better access to safe abortion, MR and PAC services. One

way to improve capacity is through increasing the provision of medication abortion in facilities. This is relatively easy to do as it requires minimal training for providers to safely offer this procedure. Expanding access to training in medication abortion could also address another problem which these data point to—that is, overuse of invasive surgical methods, particularly in the study states in India. Referral networks must also be strengthened to ensure continuity of care: If a woman is unable to obtain services at the health facility where she first sought care, making sure that providers know where she can obtain needed services is critical to ensure that women are not left vulnerable to the danger of having an unsafe abortion or MR procedure, or going without needed post-abortion care.

Governments in each of these countries should improve their data collection mechanisms to better capture health facility capacity, monitor public sector facilities' provision of the range of services they are mandated to provide, the extent to which they fall short of doing so, and the reasons that underlie lack of implementation. Such data on healthcare service provision would enable government agencies to diagnose problems and determine effective solutions. The private sector should also be expected to accurately report legal services to quantify demand for services related to abortion and MR. While each country faces its own particular barriers to improved data collection, these countries could be encouraged to share best practices to learn from one another how to improve the accuracy of their health sector statistics.

Future research is needed to better understand supply chain barriers preventing health facilities from maintaining adequate supplies of drugs and equipment to provide abortion and MR services. Exploring with providers how they make determinations about the use of D&C and D&E would also inform approaches to reduce the long-standing overuse of methods no longer recommended by the WHO. In-depth studies looking at why women seek care outside of the formal health sector would help shed light on why such a large proportion of abortions and MRs continue to occur outside of the formal health sector, even in countries where abortion and MR are permitted. In-depth studies of providers' reasons for denying women services and the consequences of doing so are also a priority. Such studies would provide insights on specific ways to improve the quality of services and women's access to these services.

Conclusion

The three countries in South Asia and the six states of India included in this analysis are similar across a number of demographic indicators: high levels of unmet need for contraception, and unintended pregnancy, and as a consequence, relatively high rates of abortion incidence. They are also similar in terms of women's status which influences decision-making regarding obtaining SRH services, the inadequacy of their health care systems to provide universal access to quality abortion and MR services—as relevant in each country, depending on its laws and policies, or to comprehensive post-abortion care, as established in the policies of all four countries. Particularly given these similarities, lessons learned regarding provision of quality abortion care in any one of these four countries may well benefit the other countries. There is urgent need to increase attention and resources to expand and improve provision of

these services and to quality contraceptive care to reduce abortion-related morbidity and mortality and unintended pregnancy, to protect women's health, and to fulfill their rights to comprehensive sexual and reproductive health care.

List Of Abbreviations

- D&C: Dilatation and curettage
- D&E: Dilatation and evacuation
- HFS: Health Facility Survey
- MA: Medication abortion
- MR: Menstrual regulation
- MRM: Menstrual regulation with medication
- MVA: Manual vacuum aspiration
- NGO: Non-governmental organization
- PAC: Post-abortion care
- SRH: Sexual and reproductive health
- UH&FWCs: Union Health and Family Welfare Centers
- VA: Vacuum aspiration

Endnotes

^a Post-abortion care is defined in this paper to include services for patients admitted to facilities for the treatment of complications from unsafe abortions. ^b A limitation of this indicator for purposes of comparison across countries and states is the fact that it does not capture women who have complications and do not obtain care in facilities, a factor that is affected by differential access to facility-based care and by cultural differences in seeking health care. ^c Vacuum aspiration (VA) includes manual vacuum aspiration and electrical vacuum aspiration procedures. ^d We have grouped these two methods together because providers may use D&C as a generic term applying to both, and as a result the proportions for each procedure may not be accurate. ^e D&E is not specified in the Bangladesh survey; however, it is likely that the term D&C may be understood to include D&E. ^f The values for Tamil Nadu and Uttar Pradesh should be treated as a minimum, because of missing values in the data for these states. It is possible that with more complete information, the proportion of patients who were treated using such invasive procedures would increase.

Declarations

Ethics approval and consent to participate: This article uses secondary data analysis from four representative health facility surveys. Each was approved by the Institutional Review Board affiliated with

the Guttmacher Institute, in addition to each country's ethical research review authority.

Guttmacher Institute's IRB (DHHS identifier IRB00002197) reviewed and approved all four studies

Bangladesh: Bangladesh Medical Research Council, National Research Ethics Committee, Approval Reference #: BMRC/NREC/2013–2016/565.

India: International Institute for Population Sciences (IIPS)IRB certificate no. IRB/NFHS–4/01_1/2015

Nepal: Nepal Ethics Committee: Nepal Health Research Council Approval reference number: Reg. no, 45/2074

Pakistan: Population Council's Institutional Review Board (IRB) Protocol 521

Consent for publication: Not applicable

Availability of data and material: The datasets used and analyzed during the current study are available from the corresponding author on reasonable request.

Competing interests: The authors declare that they have no competing interests.

Funding: This study has been made possible by UK Aid from the UK Government *and a grant from the Dutch Ministry of Foreign Affairs. The views expressed are those of the authors and do not necessarily reflect the positions and policies of the donors.*

Authors' contributions: All authors have read and approved the final manuscript. SS led conceptualization of the project and writing. AS and SS co-led analysis; AS participated in conceptualization and writing. AMM participated in conceptualization, writing and review of drafts. MC contributed to analysis, writing and preparation of manuscript. CS, MP, ZS and AH led data collection for each of their respective countries' survey, and contributed by review of study design, analysis results and drafts.

Acknowledgements: The authors are grateful for contributions provided by the following colleagues: Akinrinola Bankole, Shireen Jejeebhoy, Sabahat Hussain, Rehan Niazi, Isaac Maddow-Zimet, Meghan Ingerick, Melissa Stillman.

References

1. Starrs AM, Ezeh AC, Barker G, Basu A, Bertrand JT, Blum R, et al. Accelerate progress—sexual and reproductive health and rights for all: report of the Guttmacher–Lancet Commission - The Lancet. The Lancet. 2018 May 9;391(10140):2642–92.
2. Singh S, Remez L, Sedgh G, Kwok L, Onda T. Abortion Worldwide 2017: Uneven Progress and Unequal Access [Internet]. New York: Guttmacher Institute; 2018 Feb [cited 2019 Jan 8]. Available from: <https://www.guttmacher.org/report/abortion-worldwide–2017>

3. Puri, Singh, Sundaram, Hussain, Tamang, Crowell. Abortion Incidence and Unintended Pregnancy in Nepal. *International Perspectives on Sexual and Reproductive Health*. 2016;42(4):197.
4. Sathar Z, Singh S, Rashida G, Shah Z, Niazi R. Induced Abortions and Unintended Pregnancies in Pakistan. *Studies in Family Planning*. 2014 Dec;45(4):471–91.
5. Singh, Hossain, Maddow-Zimet, Vlassoff, Bhuiyan, Ingerick. The Incidence of Menstrual Regulation Procedures and Abortion in Bangladesh, 2014. *International Perspectives on Sexual and Reproductive Health*. 2017;43(1):1.
6. Singh S, Shekhar C, Acharya R, Moore AM, Stillman M, Pradhan MR, et al. The incidence of abortion and unintended pregnancy in India, 2015. *The Lancet Global Health*. 2018 Jan;6(1):e111–20.
7. IIPS/India II for PS-, ICF. India National Family Health Survey NFHS–4 2015–16. 2017 [cited 2018 Oct 8]; Available from: <https://dhsprogram.com/publications/publication-fr339-dhs-final-reports.cfm>
8. MOH/Nepal M of H-, ERA/Nepal N, ICF. Nepal Demographic and Health Survey 2016. 2017 [cited 2018 Oct 8]; Available from: <https://dhsprogram.com/publications/publication-FR336-DHS-Final-Reports.cfm>
9. NIPOORT/Bangladesh NI of PR and T-, Associates M and, International ICF. Bangladesh Demographic and Health Survey 2014. 2016 [cited 2018 Oct 8]; Available from: <https://dhsprogram.com/publications/publication-FR311-DHS-Final-Reports.cfm>
10. National Institute of Population Studies (NIPS) [Pakistan], ICF. Pakistan: DHS 2017–18 - Key Indicators Report (English) [Internet]. Islamabad, Pakistan, and Rockville, Maryland, USA: NIPS and ICF; 2018 [cited 2018 Oct 8]. Available from: <https://dhsprogram.com/publications/publication-PR109-Preliminary-Reports-Key-Indicators-Reports.cfm>
11. Nepal Law Commission, Government of Nepal. Safe Motherhood and Reproductive Rights Act, 2075 [Internet]. Kathmandu: Nepal Law Commission; 2075 2018. Available from: www.lawcommission.gov.np/np/archives/7232
12. Ministry of Health and Family Welfare, Government of India. MTP ACT (Amendment) [Internet]. 2002. Available from: <https://mohfw.gov.in/acts-rules-and-standards-health-sector/acts/mtp-act-amendment-2002>
13. Government of the People’s Republic of Bangladesh. Memo No. 5–14/MCH-FP/Trg. 79. 1979.
14. Directorate General of Family Planning. Proceedings of the 62nd Meeting of the National Technical Committee (NTC). Dhaka, Bangladesh: Directorate General of Family Planning; Jun 30, 2014.
15. Government of Bangladesh. Penal Code, 1860, as adopted by the Bangladesh Laws Revision and Declaration Act of 1973. 1973.
16. Government of Pakistan. The First Ordinance of the Qisas and Diyat Law. Sect. Islamabad, Pakistan: Ministry of Law, Justice and Parliamentary Affairs (Law and Justice Division) 1990.
17. Singh S, Shekhar C, Acharya R, Moore AM, Stillman M, Pradhan MR, et al. Appendix: The incidence of abortion and unintended pregnancy in India, 2015. *The Lancet Global Health*. 2018 Jan 1;6(1):supplemental.

18. Unpublished tabulations using 2014 Nepal HPS Data.
19. Sathar Z, Singh S, Shah Z, Rashida G, Kamran I, Eshai K. Post-Abortion Care in Pakistan: A National Study. Islamabad, Pakistan: Population Council; 2013.
20. Singh S, Hussain R, Shekhar C, Acharya R, Moore AM, Stillman M, et al. Abortion and Unintended Pregnancy in Six Indian States: Findings and Implications for Policies and Programs [Internet]. New York: Guttmacher Institute; 2018 Oct [cited 2019 Jan 8]. Available from: <https://www.guttmacher.org/report/abortion-unintended-pregnancy-six-states-india>
21. Ganatra B, Gerdtz C, Rossier C, Johnson BR, Tunçalp Ö, Assifi A, et al. Global, regional, and subregional classification of abortions by safety, 2010–14: estimates from a Bayesian hierarchical model. *The Lancet*. 2017 Nov 25;390(10110):2372–81.
22. Singh S, Maddow-Zimet I. Facility-based treatment for medical complications resulting from unsafe pregnancy termination in the developing world, 2012: A review of evidence from 26 countries. *BJOG: An International Journal of Obstetrics & Gynaecology*. 2015;123(9):1489–98.
23. Alagarajan M, Sundaram A, Hussain R, Acharya R. Unintended Pregnancy, Abortion and Postabortion Care in Tamil Nadu—2015 [Internet]. New York: Guttmacher Institute; 2018 Nov [cited 2019 Apr 14]. Available from: <https://www.guttmacher.org/report/unintended-pregnancy-abortion-postabortion-care-tamil-nadu-india-2015>
24. Hussain R, Shekhar C, Moore AM, Sahoo H, Acharya R. Unintended Pregnancy, Abortion and Postabortion Care in Madhya Pradesh, India—2015 [Internet]. New York: Guttmacher Institute; 2018 [cited 2019 Apr 14]. Available from: <https://www.guttmacher.org/report/unintended-pregnancy-abortion-postabortion-care-madhya-pradesh-india-2015>
25. Pradhan MR, Frost JJ, Stillman M, Ball H. Unintended Pregnancy, Abortion and Postabortion Care in Assam—2015 [Internet]. New York: Guttmacher Institute; 2018 [cited 2019 Apr 14]. Available from: <https://www.guttmacher.org/report/unintended-pregnancy-abortion-postabortion-care-assam-india-2015>
26. Sahoo H, Stillman M, Frost JJ, Kalyanwala S. Unintended Pregnancy, Abortion and Postabortion Care in Gujarat, India—2015 [Internet]. New York: Guttmacher Institute; 2018 [cited 2019 Apr 14]. Available from: <https://www.guttmacher.org/report/unintended-pregnancy-abortion-postabortion-care-gujarat-india-2015>
27. Shekhar C, Sundaram A, Hussain R, Pradhan MR, Kalyanwala S. Unintended Pregnancy, Abortion and Postabortion Care in Uttar Pradesh, India—2015 [Internet]. New York: Guttmacher Institute; 2018 Nov [cited 2019 Apr 14]. Available from: <https://www.guttmacher.org/report/unintended-pregnancy-abortion-postabortion-care-uttar-pradesh-india-2015>
28. Stillman M, Alagarajan M, Moore AM, Singh S, Ball H. Unintended Pregnancy, Abortion and Postabortion Care in Bihar, India—2015 [Internet]. New York: Guttmacher Institute; 2018 [cited 2019 Apr 14]. Available from: <https://www.guttmacher.org/report/unintended-pregnancy-abortion-postabortion-care-bihar-india-2015>

29. NIPS/Pakistan NI of PS-, International ICF. Pakistan Demographic and Health Survey 2012–13. 2013 [cited 2018 Oct 8]; Available from: <https://dhsprogram.com/publications/publication-FR290-DHS-Final-Reports.cfm>
30. World Health Organization. Safe abortion: technical and policy guidance for health systems [Internet]. Geneva: World Health Organization; 2012 Jan [cited 2019 Jan 8]. Report No.: 2nd Edition. Available from: <https://www.tandfonline.com/doi/full/10.1016/S0968-8080%2812%2939623-7>
31. World Health Organization. Clinical Practice Handbook for Safe Abortion. Geneva: World Health Organization; 2014.
32. Powell-Jackson T, Acharya R, Filippi V, Ronsmans C. Delivering medical abortion at scale: a study of the retail market for medical abortion in Madhya Pradesh, India. Cameron S, editor. PLOS One. 2015 Mar 30;10(3):e0120637.
33. World Health Organization. Health worker roles in providing safe abortion care and post abortion contraception. Geneva, Switzerland: WHO; 2015.

Tables

Table 1. Total number of induced abortions (menstrual regulation procedures and illegal abortions in Bangladesh), percent legal, percent illegal, abortion rate and rate of treatment in facilities for abortion complications, South Asia, 2012-2015					
Country	Abortions (legal and illegal; for Bangladesh, menstrual regulation procedures and illegal abortions)			Abortion Rate (number of abortions per 1,000 women aged 15-49)	Treatment rate (number treated for abortion complications per 1,000 women aged 15-49)
	Total number	Percent legal procedures (% MR procedures in Bangladesh)	Percent which are illegal		
	<i>N</i>	%	%		
Bangladesh, 2014	1,624,320	26.5	73.5	38.9	1,624,320
India, 2015	15,644,748	21.6	78.4	47.0	15,644,748
Assam	580,100	21.1	78.9	66.2	580,100
Bihar	1,251,000	15.5	84.5	49.4	1,251,000
Gujarat	811,800	15.0	85.0	47.6	811,800
Madhya Pradesh	1,110,000	25.5	74.5	57.3	1,110,000
Tamil Nadu	707,900	32.3	67.7	32.8	707,900
Uttar Pradesh	3,151,600	11.4	88.6	61.1	3,151,600
Nepal, 2014	323,094	42.4	57.6	41.7	323,094
Pakistan, 2012	2,250,087	††	100	50.3	2,250,087
† Data are not available.					
†† Not applicable.					
Sources: Singh et al (2017) (Bangladesh). Singh et al (2018a) (India national incidence). Pradhan et al (2018) (Assam). Stillman et al (2018) (Bihar). Sahoo et al (2018) (Gujarat). Hussain et al (2018) (Madhya Pradesh). Alagarajan et al (2018) (Tamil Nadu). Shekhar et al (2018) (Uttar Pradesh). Singh et al (2018b) (India treatment rate for abortion complications). Puri et al (2016) (Nepal). Sathar et al (2014) (Pakistan).					

Table 2. Among facilities that provide abortion services (Menstrual Regulation (MR) services in Bangladesh) or post-abortion care (PAC), percent that provide both services, or only one of these two services, South Asia, 2014-2015.^a

Country	Of all facilities that provide induced abortion (MR in Bangladesh) or PAC			
	Percent that provide both induced abortion (MR in Bangladesh) and PAC	Percent that provide induced abortion (or MR in Bangladesh) only	Percent that provide PAC only	Total
	%	%	%	%
Bangladesh, 2014 ^b	38.6	0.6	60.9	100.0
India, 2015				
Assam	65.9	3.8	30.3	100.0
Bihar	59.3	6.4	34.2	100.0
Gujarat	49.5	11.2	39.3	100.0
Madhya Pradesh	57.7	8.7	33.6	100.0
Tamil Nadu	71.0	18.1	10.9	100.0
Uttar Pradesh	38.1	3.1	58.8	100.0
Nepal, 2014	55.5	12.4	32.2	100.0

^a Pakistan is omitted because legal abortion services are not available.

^bOne large category of facilities and the primary health providers in rural areas, Union Health and Family Welfare Centres (UH&FWCs) may provide MR but are not permitted to provide PAC care. We have therefore removed this group from the denominators for these calculations to ensure comparability.

Sources: Special tabulations of HFS data for all three countries.

Table 3. Proportion of abortion service providing facilities that are public, and proportion of public facilities providing abortion services, by type of service, countries in South Asia, 2012-2015.

Country	Induced abortion (or MR) providers		PAC providers	
	Percent of facilities providing induced abortion (or MR) which are public	Of public facilities which are potentially able to provide abortion (or MR), what percent are actually providing?	Percent of facilities providing PAC which are public	Of public facilities which are potentially able to provide PAC, what percent are actually providing?
	%	%	%	%
Bangladesh, 2014 ^a	59.6 ^b	73.7 ^c	31.5	98.8
India, 2015				
Assam	55.2	18.3	59.5	27.2
Bihar	12.2	10.7	22.6	28.2
Gujarat	18.4	16.4	22.1	28.8
Madhya Pradesh	22.8	36.3	28.5	62.3
Tamil Nadu	13.0	16.5	13.5	15.8
Uttar Pradesh	21.4	10.9	25.1	30.2
Nepal, 2014	70.0	38.1	71.0	41.5
Pakistan, 2012	††	††	37.0	25.6

†† Not applicable.

^aFor comparability across the measures for Bangladesh, all estimates for Bangladesh exclude Union Health and Family Welfare Centers (UH&FWCs), which are only permitted to provide MR, not PAC, from the denominators.

^b If UH&FWCs had been included, this value would be 85%.

^c If UH&FWCs had been included, this value would be 53%.

Sources: Special tabulations of HFS data for all four countries.

Table 4. Percent of women of reproductive age living in rural areas, and percent of facilities which provide abortion services (MR services in Bangladesh) or post-abortion care (PAC) which are located in rural areas, South Asia, 2012-2015

Country	Percent of women aged 15-49 living in rural areas	Of facilities providing induced abortion (MR in Bangladesh), percent located in rural areas	Of facilities providing PAC, percent located in rural areas
	%	%	%
Bangladesh, 2014 ^a	71.7 ^b	59.9 ^c	7.2
India, 2015			
Assam	85.0	34.0	43.2
Bihar	86.6	22.3	31.7
Gujarat	55.6	24.6	31.1
Madhya Pradesh	69.3	12.9	21.4
Tamil Nadu	49.1	4.5	3.7
Uttar Pradesh	73.6	32.0	38.8
Nepal, 2014	37.2	57.1	60.1
Pakistan, 2012	66.5 ^b	††	30.7

†† Not applicable.

^aFor comparability across the measures for Bangladesh, Union Health and Family Welfare Centers (UH&FWCs), which are only permitted to provide MR, not PAC, are included.

^b Data are among ever married women only.

^c If UH&FWCs had been excluded, the estimate would be 5%.

Sources: Col 1: National Institute of Population Research and Training - NIPORT/Bangladesh, Mitra and Associates, and ICF International (2016); International Institute for Population Sciences (IIPS) and ICF (2018a), (2017a); (2017b); (2017c); (2017d); (2017e); Ministry of Health - MOH/Nepal, New ERA/Nepal, and ICF (2017); National Institute of Population Studies - NIPS/Pakistan and ICF International (2013). Cols 2 and 3: Special tabulations of HFS data for all four countries.

Table 5. Percent of abortion-seeking women who were turned away by facilities, and the selected reasons reported by facility for turning them away, South Asia, 2014-2015 ^a			
Country	Of all women seeking abortion services, percent who were turned away	% of facilities reporting selected reasons for turning away women seeking abortion services	
		Patient too young/unmarried/no children ^b	Medical reasons ^c
	%	%	%
Bangladesh, 2014	27.0	34.8	66.0
India, 2015			
Assam	5.8	54.2	64.9
Bihar	24.5	28.5	27.9
Gujarat	8.3	37.1	24.8
Madhya Pradesh	24.5	26.2	19.1
Tamil Nadu	15.9	22.4	24.8
Uttar Pradesh	19.4	44.1	20.0
Nepal, 2014	18.4	†	67.7

† Data are not available

^a Pakistan is omitted because legal abortion services are not available.

^b Facilities that turned away women for one or more of these three reasons.

^c For Nepal, this is "facility doesn't have capacity to manage client's health complications"

Sources: Hossain et al (2017) (Bangladesh). Special tabulations of HFS data for India and Nepal.

Table 6. Percent of all, public and private facilities providing abortion services (MR in Bangladesh), by capacity to provide that service, South Asia, 2014-2015.^a

Country	Among all facilities providing induced abortion (MR in Bangladesh)		Among public facilities providing induced abortion (MR in Bangladesh)		Among private facilities providing induced abortion (or MR in Bangladesh)	
	Percent providing MA (MRM in Bangladesh)	Percent with vacuum aspiration equipment and trained staff	Percent providing MA (MRM in Bangladesh)	Percent with vacuum aspiration equipment and trained staff	Percent providing MA (MRM in Bangladesh)	Percent with vacuum aspiration equipment and trained staff
	%	%	%	%	%	%
Bangladesh, 2014	20.8 ^b	81.6	14.3 ^b	70.1	30.3	98.7
India, 2015						
Assam	83.7	92.7	80.6	89.4	87.6	96.7
Bihar	86.2	74.8	69.5	63.2	88.6	76.4
Gujarat	88.2	79.4	84.1	69.1	89.1	81.7
Madhya Pradesh	95.0	81.0	97.2	79.3	94.4	81.5
Tamil Nadu	93.7	49.2	82.9	82.9	95.3	44.1
Uttar Pradesh	89.0	53.8	90.5	43.7	88.6	56.6
Nepal, 2014	95.7	73.8	97.2	66.0	92.4	92.1
†† Not applicable						
^a Pakistan is omitted because legal abortion services are not available.						
^b These estimates exclude the Union Health and Family Welfare Centers (UH&FWCs).						
Sources: Special tabulations of HFS data for all four countries.						

Table 7. Percentage distribution of facility-based abortions by type of method, India and Nepal, 2014-2015^a

Country	Surgical methods			Medication abortions	Total
	Vacuum aspiration	D&C/D&E	Other ^b		
	%	%	%	%	%
India, 2015					
Assam	56.6	29.9	0.8	12.6	100.0
Bihar	42.9	30.5	0.0	26.5	100.0
Gujarat	31.1	27.7	0.0	41.2	100.0
Madhya Pradesh	31.6	24.8	0.0	43.5	100.0
Tamil Nadu	20.0	35.8	0.0	44.2	100.0
Uttar Pradesh	19.7	37.1	0.7	42.5	100.0
Nepal, 2014	50.2	4.6	0.0	45.2	100.0

^a Data for Bangladesh are omitted, because MR is only permitted up to 12 weeks (when provided by a physician), making the distribution by type of method not comparable with the other two countries which permit second trimester abortion; Pakistan is omitted because legal abortion and MR services are not available.

^b Other surgical methods include any surgical methods other than D&C, D&E, or vacuum aspiration

Sources: Pradhan et al (2018) (Assam). Stillman et al (2018) (Bihar). Sahoo et al (2018) (Gujarat). Hussain et al (2018) (Madhya Pradesh). Alagarajan et al (2018) (Tamil Nadu). Shekhar et al (2018) (Uttar Pradesh). Special tabulations of Nepal HFS data.

Figures

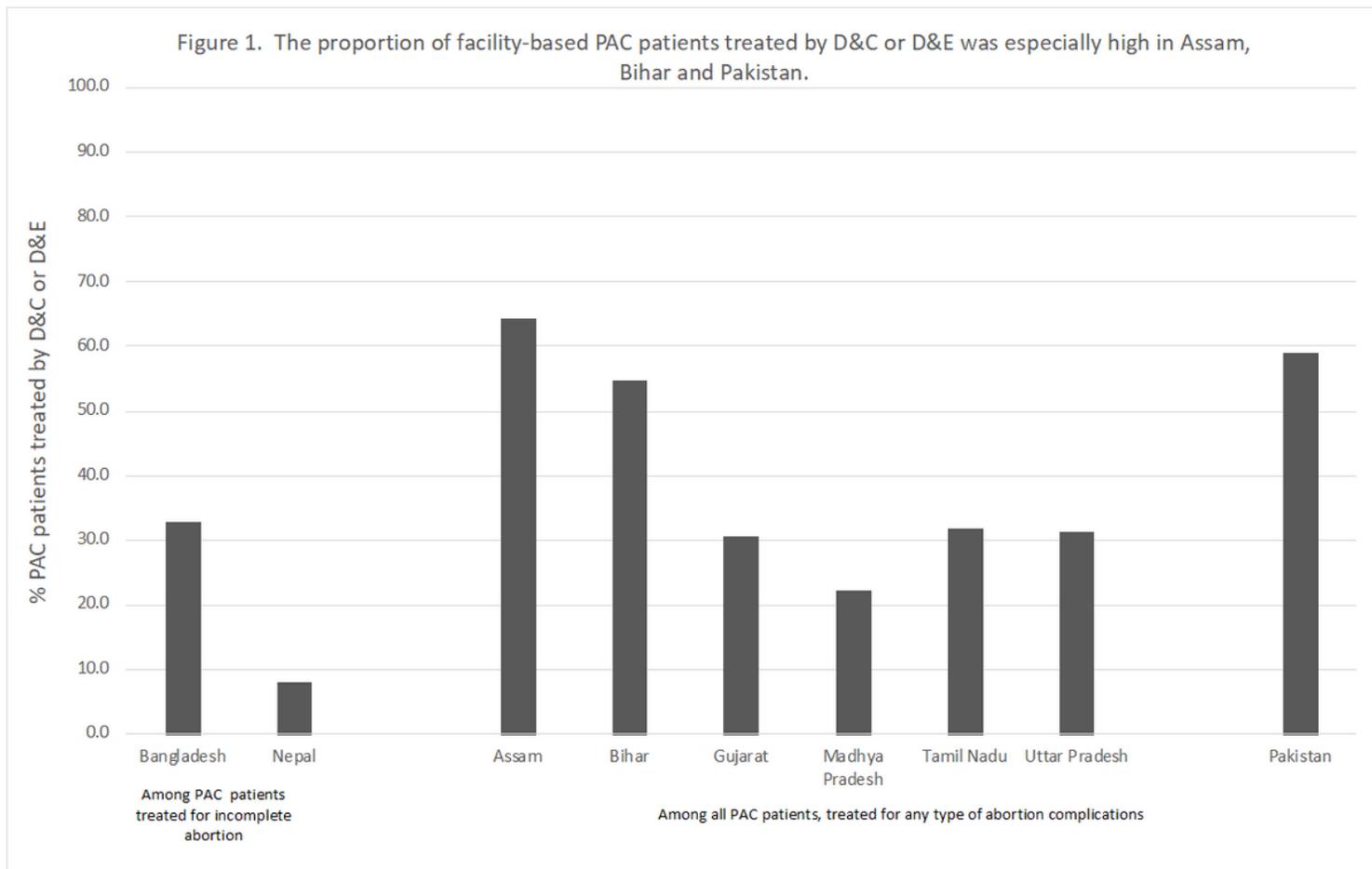


Figure 1

The proportion of facility-based PAC patients treated by D&C or D&E was especially high in Assam, Bihar and Pakistan.

Supplementary Files

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- [AppendixTable1.docx](#)