Bangladeshi Husbands’ Work Migration Is Linked To Elevated Levels of Risky Behavior for Both Spouses

In Bangladesh, where migration is crucial to many individuals’ and families’ livelihood, spouses who spend time living apart because of the husband’s work migration engage in higher levels of risky behavior than do those who never live apart from their families.† The proportion of men reporting in a 2004 survey that they had ever had extramarital sex was significantly higher among those who had spent time away from home to find work than among those who had not; reports of extramarital sex were relatively uncommon among women, but were more frequent among wives whose husbands migrated for work than among others. The longer the period of separation, the more likely both men and women were to report having had an extramarital partner.

The survey was conducted in two rural areas of Bangladesh that are part of an ongoing health and demographic surveillance effort. In one area, many men travel within the country or on brief trips to India for work; in the other, temporary migration for work abroad (largely to the Middle East) is common. To study the relationship between sexual risk behavior and husbands’ work migration, researchers interviewed a sample of 15–49-year-old women who had been included in the surveillance project since 1999 and their husbands. A total of 1,175 women and 703 men completed interviews. The researchers used data from the surveillance system to assess whether spouses had lived together throughout the previous five years, were currently living apart because of the husband’s work migration or had lived apart for that reason at some time during the last five years; they classified couples as having lived apart if the husband had been away from home for more than 60 days.

Women were about equally divided among those whose husbands had not lived away from home in the past five years, those whose husbands were currently elsewhere in Bangladesh and those whose husbands were currently abroad. Those whose husbands were currently abroad were significantly younger and reported higher monthly household expenditures than those who had not been separated from their husbands; women who had not lived apart from their husbands had less education and had been married longer than women whose husbands had migrated either internally or abroad.

The majority of men had not lived away from home in the previous five years; 17% had worked elsewhere in Bangladesh, and 26% had traveled abroad for work. Men who had not been apart from their wives were younger than those who had returned from abroad, and reported lower monthly household expenditures than either group of men who had migrated for work.

Significantly higher proportions of men who had migrated for work than of those who had not migrated reported ever having had extramarital sex—60% of internal migrants and 67% of those who had worked outside the country, compared with 26% of men who had not lived away from their wives. Differences were reported both for intercourse with sex workers (50–59% of migrants vs. 15% of others) and for sex with a male partner (6–9% vs. 3%). Results of an analysis that controlled for socioeconomic factors confirmed that the likelihood of having engaged in extramarital sex was elevated if men had been separated from their wives (odds ratio, 4.5 for those who had lived elsewhere in Bangladesh and 6.2 for those who had lived abroad).

Women were less likely than men to report having had extramarital sex than of those who had not migrated reported ever having had extramarital sex—60% of internal migrants and 67% of those who had worked outside the country, compared with 26% of men who had not lived away from their wives. Differences were reported both for intercourse with sex workers (50–59% of migrants vs. 15% of others) and for sex with a male partner (6–9% vs. 3%). Results of an analysis that controlled for socioeconomic factors confirmed that the likelihood of having engaged in extramarital sex was elevated if men had been separated from their wives (odds ratio, 4.5 for those who had lived elsewhere in Bangladesh and 6.2 for those who had lived abroad).

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The longer spouses had lived apart, the greater the likelihood of extramarital sex. Men’s odds of reporting ever having had extramarital sex were 8–9 times as high among those who had lived elsewhere in Bangladesh for six or more months and those who had lived abroad for more than four years as the odds among those who had not lived apart from their wives. Similarly, compared with women whose husbands had not migrated for work, those with husbands who had lived away from home for some period of time had 6–7 times the odds of having had an extramarital partner.

Most men who had had extramarital sex had never used a condom during those occasions, but the proportion who had done so was significantly higher among those who had been abroad (28%) than among those who had not lived away from home (17%). The last time they had had extramarital sex, 9–13% of men who had migrated for work, but only 1% of others, had used a condom. When having intercourse with sex workers, similar proportions of men in all subgroups (24–31%) had ever used condoms, but use at last sex was more common among men who had lived away from home (13–17%) than among those who had not (7%). The numbers of men who reported having had male extramarital sex partners was too small to permit analysis of condom use. Three in 10 men in each subgroup had ever used condoms with their wives, 6–12% had done so the last time they had sex.

Some 38–46% of women and 14–30% of men in the various subgroups had ever had symptoms of an STI. For each gender, in every subgroup, the proportion who had had STI symptoms was significantly higher among those reporting extramarital sex than among others. Reports of symptoms were less common among women whose husbands currently lived elsewhere in Bangladesh than among those who had not lived apart from their husbands (38% vs. 45%) and were more common among men who had lived apart from their wives than among those who had not (28–30% vs. 14%).

Nearly all men (85–96%) and large majorities of women (60–75%) had heard of HIV/AIDS, but only 9–18% across subgroups had ever discussed it with their spouse. Men were significantly more likely than women to
In Belo Horizonte, Brazil, perinatal mortality was higher in hospitals that provided care under government contracts than in private hospitals that did not receive such funding, according to a cohort study of nearly 41,000 births in 24 facilities.\(^1\) Mortality was also elevated in hospitals that scored lower on a quality measure based on structural capacity to provide maternal and infant care. When maternal education and birth weight were controlled for, infants born in government-funded hospitals had an elevated relative risk of perinatal mortality (2.1–3.1), and infants delivered at hospitals having a low quality of care were at greater risk than those delivered at hospitals of adequate quality (1.9).

Although almost all births in Brazil occur in hospitals, with a large majority assisted by doctors, the country has persistently high infant mortality (23 deaths per 1,000 live births in 2003). Most infant deaths in the country are preventable through access to better hospital care, however, few studies have assessed the relationship between socioeconomic status, quality of hospital care and perinatal mortality. This study assessed how mothers’ socioeconomic status and hospital use influenced perinatal mortality. Almost 80% of Brazilians receive health care provided by the country’s Universal Public Health System (Sistema Único de Saúde, SUS) through contracts with private hospitals and hospitals run by philanthropies and the government. The remainder, who can afford private health insurance or direct payment, use private, non-SUS hospitals.

The data for this study were drawn from a 1999 cohort study of 40,953 live births and 775 perinatal deaths. Perinatal deaths were defined as fetal deaths and infant deaths occurring within seven days of birth (with a birth weight of at least 500 or a gestational age of at least 22 weeks). Hospitals were classified by whether they provided care under a contract with the SUS system and by their quality of care; maternal education was used as an indicator of socioeconomic status.

Twenty-two percent of all live births took place in private, non-SUS hospitals; the rest occurred in private (40%), philanthropic (22%) and public (15%) SUS hospitals. Forty-five percent of births took place in hospitals with a low quality of care, 26% in those with intermediate quality and 24% in those with adequate quality. Eleven percent of all live births had a low or very low birth weight (less than 2,500 g).

Seventy-four percent of perinatal deaths occurred among low or very low birth weight infants, and about a third of deaths took place at hospitals of each level of care (32–35%). The large majority of perinatal deaths occurred at SUS hospitals (87%), with 36% at public SUS institutions; only 13% of deaths took place at private, non-SUS hospitals.

Overall, the perinatal mortality rate was 19 deaths per 1,000 live births. Compared with the rate at private, non-SUS hospitals, crude rate ratios for perinatal mortality ranged from 1.3 in private SUS hospitals to 4.2 in public SUS hospitals.

Slightly fewer than one-third (31%) of mothers who gave birth in SUS hospitals had eight or more years of education, compared with 85% of those who gave birth at private, non-SUS hospitals. For both more educated mothers and less educated mothers, rates of perinatal mortality were higher at public SUS hospitals (21.7 per 1,000 and 23.3 per 1,000, respectively) than at private, non-SUS hospitals (6.6 per 1,000 and 6.2 per 1,000). Compared with the rates in private, non-SUS hospitals, rate ratios for perinatal mortality ranged from 1.2 among more educated mothers at private SUS hospitals to 3.5 among less educated mothers at public SUS hospitals.

Rates of perinatal mortality from specific causes varied by hospital type and by birth weight. Among low-birth-weight infants, for example, the rate of perinatal death from asphyxia (36.7 per 1,000 live births overall) ranged from 18.5 per 1,000 in private, non-SUS hospitals to 50.2 per 1,000 in public SUS hospitals, while the rate of death from immaturity (3.4 per 1,000 live births overall) ranged from 25.1 per 1,000 in philanthropic SUS hospitals to 48.0 per 1,000 in public SUS hospitals. Among infants of normal birth weight, the rate of death from asphyxia (2.7 per 1,000 live births overall) varied from 0.9 per 1,000 in private, non-SUS hospitals to 3.6 per 1,000 in private SUS hospitals, while the rate of death from immaturity (0.3 per 1,000 overall) varied from 0.0 in private, non-SUS hospitals to 0.6 in private SUS hospitals.

After controlling for maternal education and birth weight, multiple logistic regression analysis found that, compared with infants delivered in private, non-SUS hospitals, those born in private or philanthropic SUS hospitals had an elevated risk of perinatal mortality (3.1 and 2.1, respectively). In addition, mortality was higher at hospitals with low quality-of-care scores than at those scored as having adequate quality (1.9).

According to the researchers, even though most Brazilian women give birth in a hospital, nontimely access to care and low-quality care during delivery and the neonatal period present significant risks of perinatal mortality. They recommend that public services be increased at SUS-funded hospitals and that government resources be directed toward ex-
To determine semen exposure, the researchers first assessed the PSA level (measured in nanograms per milliliter) of the postcoital sample of vaginal fluid. If PSA was detected (i.e., if the level was more than 1 ng/ml), they assessed the precoital sample, to rule out previous exposure.

Study participants were predominantly white (78%) and married (77%), six in 10 had been in their current relationship for at least five years. Eighty-nine percent had ever used a male condom with a main partner, 19% of these had experienced condom breakage, and 43% condom slippage. Only 6% had ever used a female condom with their current partner. Most (69%) had not used condoms in the past 30 days. Background characteristics did not differ between women assigned to use male condoms first and those assigned to use female condoms first.

Participants returned 700 male and 678 female condoms to the clinic. Nine percent of male condoms were accompanied by reports of mechanical problems (primarily breakage or slippage), and 68% by reports of partial or incorrect use. Thirty-four percent of forms returned with female condoms noted mechanical problems (mainly that the condom broke or slipped, the penis entered to the side of the device or the condom’s outer ring was pushed into the vagina), and 8% recorded instances of incorrect use.

PSA assessments of the vaginal fluid samples indicated that women had been exposed to semen 14% of the time they used male condoms and 17% of the time they used female condoms; the difference was not statistically significant. Moderate or high levels of PSA (22 ng/ml or more), which indicate sufficient semen exposure to pose a risk of STI transmission, were detected in 4% of samples accompanying male condoms and 5% of those submitted with female condoms; the confidence interval around this one-point difference (~1.6 to 3.7) was not narrow enough to establish that the difference was statistically significant. PSA levels did not change with successive uses of male condoms but declined significantly with each use of female condoms.

The frequency with which moderate or high PSA levels were detected was related to the types of problems women reported with use of each method. For male condoms, such levels were more common if the device had slipped (20%), broken (11%) or been put on incorrectly (8%) than if the man had withdrawn without holding its base (1%) or if the couple had had no problems using it (3%). For female condoms, moderate or high exposure was fairly frequent if the device’s outer ring had been pushed into the vagina or had slipped (8%), or if other mechanical problems were reported (10%); the only report of breakage was accompanied by a vaginal fluid sample with a moderate or high PSA level. By contrast, no reports of incorrect use were accompanied by such levels, and exposure was moderate or high in only 3% of instances in which no problems were reported.

According to the researchers, their findings on moderate and high PSA levels do not “exclude a moderate difference in performance” between the two types of condoms, but indicate that “large differences are unlikely.” Thus, the investigators comment that in conjunction with findings from other studies, their results suggest “that although the female condom performs less well than the male condom in the first few uses, its effectiveness over repeated use is similar.” While acknowledging a number of limitations of their study (for example, participants were at low risk of STIs and had greater experience with male than with female condoms), the researchers conclude that it adds to the growing literature “shedding…new light on the risk of adverse outcomes determined by specific problems encountered by condom users.”—D. Hollander

**REFERENCE**


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**Female and Male Condoms Offer Similar Protection Against Exposure to Semen**

Breakage, slippage and other mechanical problems occur more frequently with female than with male condoms, but the two devices are about equally effective barriers to semen exposure, according to findings from a randomized crossover trial conducted among women attending a reproductive health clinic in the southern United States in 2000–2001. Prostate-specific antigen (PSA), an indicator of exposure to semen, was detected in similar proportions of vaginal fluid samples collected after use of male and female condoms during the study—14% and 17%, respectively. PSA was present in high enough levels to potentially affect STD risk in 4–5% of samples associated with each type of device. Exposure to semen was more common if women reported mechanical problems with condoms than if they reported incorrect use.

Women were eligible to participate in the study if they were at least 19 years old, were in a monogamous relationship, had not used a STD in the past six months and had intercourse at least four times in the past 30 days. In all, 108 women enrolled and were randomly assigned to receive either 10 male or 10 female condoms. All participants received instruction on correct use of the assigned method and were taught to collect samples of vaginal fluid. The women were then asked to collect one sample before and one after using each condom, to place the samples and the used condom in a prelabeled bag, and to return the bag to the clinic the next business day, along with a form on which they reported problems with the condom or with the device for collecting the samples. After using the first 10 condoms, women repeated the process with the second type of condom.

**REFERENCE**


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**Among HIV-Infected South Africans, Nondisclosure Is Linked to Risky Behavior**

In a South African study conducted primarily at clinics providing HIV services, roughly two in five HIV-positive men and women said they had recently had sex without disclosing their HIV status to their partner. In many cases, this sex was unsafe: Compared with respondents who had told all of their recent partners that they had HIV, those who had concealed their status at least some of the time were substan-
tially more likely to have engaged in unprotected intercourse and other risky behaviors. They were also more likely to have experienced HIV-related discrimination, such as losing a job or a place to live because of being infected.

The researchers surveyed 1,055 HIV-positive men and women in Cape Town, most (77%) of whom were recruited at sites that provided support services or treatment; the remainder were recruited by word of mouth. The questionnaire assessed a range of demographic, health and behavioral variables, as well as respondents’ experiences with disclosing their HIV status. Most respondents were black (67%), 35 or younger (73%), single (73%) and unemployed (72%). On average, they had first tested positive for HIV 2.7 years earlier and had six physical symptoms of HIV infection; half had been hospitalized at least once for an HIV-related problem.

In the three months prior to the survey, the vast majority of participants (90% of men, 81% of women) had had at least one sexual partner, and substantial proportions had had at least one HIV-negative partner (40% of men, 18% of women) or a partner of unknown HIV status (39% of both men and women). Although most participants had had no more than one partner during the three months, 25% of men and 11% of women had had three or more.

Among the 903 sexually active respondents, 42% said that they had disclosed their HIV status to all of their sexual partners during the past three months. Compared with respondents who had disclosed their status to all of their recent partners, those who had concealed it from at least one of their partners were more likely to be married (49% vs. 26%) and less likely to identify themselves as black (62% vs. 73%). They were also more likely to have engaged in a variety of behaviors that could transmit HIV. Respondents who had concealed their status were more likely than those who had disclosed it to have had sex with partners who were HIV-negative (69% vs. 28%) or were of unknown HIV status (85% vs. 17%), to have had two or more partners (43% vs 22%), to have had unprotected vaginal intercourse with a concordant (61% vs. 28%) or nonconcordant partner (55% vs. 10%), and to have had unprotected anal intercourse with a concordant (39% vs. 12%) or nonconcordant partner (38% vs. 2%) partner.

Although participants who had concealed their HIV status from their sex partners and those who had disclosed it often differed in their sexual behavior, the two groups were generally similar in their reluctance to reveal their status to friends and strangers. After adjusting for all relevant variables, those who had concealed their HIV status from sex partners were not significantly more likely than those who had disclosed it to agree that “it is difficult to tell people about my HIV infection” (63% vs. 64%) or that “there are people I have not told I am HIV positive because I am afraid of their reaction” (65% vs. 57%). However, those who had concealed their status from sex partners did have an elevated likelihood of reporting that their HIV status had caused them to lose a job or a place to stay (odds ratio, 2.2), which may have contributed to their reluctance to tell partners and others about their infection. In addition, they were less likely than those who had disclosed their status to feel certain that they could tell their sex partners that they had HIV (0.6).

The researchers noted that the study had several limitations, including its reliance on self-reported data and its focus on a single city that may not be representative of South Africa as a whole. In addition, the study grouped together individuals who had not revealed their HIV status to any recent sex partners with those who had disclosed their status to some partners but not others; at least one prior study suggests that “selective disclosers” are particularly likely to engage in risky behaviors. Nonetheless, the study’s findings—in particular, that people who had concealed their HIV status from their partners had elevated rates of risky behavior but little confidence in their ability to reveal their status to partners—point to “the need for behavioural interventions to reduce the risks of HIV transmission among men and women living with HIV in South Africa” and “to assist them [in making] effective decisions on disclosure.”—P. Doskoch

**Sub-Saharan Africa and Eurasia Lag Behind Other Regions in Use of Skilled Attendants at Delivery**

Substantial progress has been made throughout much of the developing world toward improving the proportion of births delivered with the help of medically trained attendants. According to an analysis of nationally representative data from 73 developing countries, the estimated proportion of births delivered with assistance from a doctor, nurse or midwife increased from 45% in 1990 to 54% in 2000; increases occurred in every region except Sub-Saharan Africa and Eurasia. Use of skilled attendants within geographic regions differed by mother’s age, parity and wealth.

For the study, researchers compiled data from nationally representative surveys (e.g., Demographic and Health Surveys and Multiple Indicator Cluster Health Surveys) and government reports from developing countries. Country-level data were used to estimate the proportions of births attended by a doctor, nurse or midwife in 1990 and 2000. Regional estimates were weighted using United Nations estimates of the numbers of births in each country. Data on the percentage of births delivered with the help of a skilled attendant were available for 73 countries, representing 82% of births in the developing world in 2000.

Overall, the proportion of births in the developing world delivered with the help of skilled attendants rose from 45% to 54% between 1990 and 2000. The greatest proportional increases occurred in Northern Africa (65%) and Southeast Asia (53%). Most of the increases were attributed to more frequent use of doctors. For example, in North Africa, the use of a doctor increased 95% between 1990 and 2000, whereas the use of a nurse or midwife decreased 24% during the same period. The only regions that did not improve over the decade in terms of use of skilled attendants were Sub-Saharan Africa, where use of skilled attendants remained at around 40%, and Eurasia, where attendance decreased by 3% from near-universal coverage.

In further analyses, the researchers found differences in use of skilled birth attendants by certain characteristics of mothers. In Sub-Saharan Africa and Latin America, the proportions of births delivered by skilled attendants were stable among women up to age 29, but decreased steadily with each older age-group. A different pattern emerged for South and Southeast Asia: In those regions, the youngest and the oldest women were least likely to deliver with help from skilled attendants, whereas women aged 20–29 were the most likely. In addition, overall use of skilled attendants decreased with parity: Sixty-three percent of first births were delivered by skilled attendants, that
proportion decreased to 37% among sixth or higher order births. Furthermore, the use of skilled birth attendants increased with wealth.

The authors comment that although use of skilled attendants "is far from universal and is lagging in some regions...substantial progress has been made towards achieving the global goal of 90% coverage by 2015." They suggest that to promote use of skilled attendants, programs targeting older women, poor women and women having higher parity births may be most effective—J. Rosenberg

REFERENCE

Among Bangladeshis Men, Wife Abuse Is Associated With Extramarital Sex

Among married men in Bangladesh, those who reported having abused their wife physically, sexually or both in the previous year were more likely to report having premarital and extramarital sex partners than husbands who reported no such abuse, according to a nationally representative study conducted in 2004.1 Among husbands who reported STI symptoms or diagnose in the year prior to the survey, those who had abused their wife physically were less likely than those who had not to disclose their infection status to their spouse.

Although previous research has shown that women who experience intimate partner violence are at an increased risk for STIs, few studies have examined the relationships between such violence and the sexual risk-taking and sexual health outcomes of abusive husbands or the sexual health risks posed to their wives. Because high levels of intimate partner violence and rapid increases in rates of HIV infection among married women have been documented in South Asia, the researchers sought to examine the associations between men’s abuse and their extramarital sexual behavior; STI symptoms and diagnoses, disclosure of infection to spouses and use of condoms while symptomatic.

The data for analysis came from the sub-sample of 3,096 husbands interviewed in the 2004 MEASURE Bangladesh Demographic and Health Survey; the men provided information on social and demographic characteristics, extramarital sexual relations and intimate partner violence. Chi-square analyses were used to assess the differences in perpetration of intimate partner violence across demographic groups.

The majority of respondents (68%) were between the ages of 26 and 45; 77% reported rural residence. Almost 70% had no more than a primary education. The overwhelming majority (90%) were Muslim; the remainder were Hindu. More than one-third of men reported perpetrating some form of abuse against their wife in the previous year—20% reported physical violence only, 10% sexual violence only and 8% both.

There were significant differences in the perpetration of violence across demographic groups. The proportion of men who had abused their wife in any way in the past year declined with increasing age; this pattern held for each type of violence. In general, men with more education were less likely to abuse their wife. However, men with a secondary education were more likely than those who reported no education to have committed sexual violence only (13% vs. 7%). Higher proportions of poorer men than of wealthier men reported committing any form of violence and perpetrating both physical and sexual violence in the previous year, but this did not hold true for physical violence only or sexual violence only. Muslims were more likely than Hindus to have committed some type of violence against their wife (38% vs. 28%).

Husbands who reported committing physical violence only had greater odds of having engaged in premarital sex (odds ratio, 1.8) and extramarital sex (ever and in the previous year—1.9 and 2.0, respectively); these men also had greater odds of having had STI symptoms or having received an STI diagnosis in the previous year (1.7) and of not disclosing their STI status to their spouse (1.6). Those who reported committing sexual violence only in the previous year were more likely to have had premarital sex (2.3) and to have ever engaged in extramarital sex (2.5). Men who reported both physical and sexual violence in the previous year had greater odds of having had premarital sex (2.8), extramarital sex ever and in the previous year (2.0 and 3.5, respectively) and STI symptoms or an STI diagnosis in the previous year (2.5).

These findings are consistent with those of previous studies conducted in Bangladesh, India and sites in the developed world. The researchers suggest that, given the consistency of their findings with those from other settings, “the implications...may extend beyond the South Asian context and inform a growing global body of evidence linking perpetration of gender-based violence with men’s sexual risk behavior.” The authors believe that one of the primary implications is that there is a great need "to both prevent and intervene in men’s violence against their wives...not only for preventing the direct and injurious consequences of intimate partner violence, but also for protecting women from STIs, including HIV.”—L. Melhado

REFERENCE