

HIV/AIDS Knowledge in Bangladesh across Two Cohorts of Married Women[†]

Niels-Hugo Blunch
Washington and Lee University & IZA
blunchn@wlu.edu

Maitreyi Bordia Das
World Bank
mdas@worldbank.org

September 15, 2010

JEL Classifications: D13, I12, I21.

Keywords: AIDS/HIV awareness and prevention, health knowledge, contraceptive use, human capital, decomposition analysis, Bangladesh.

Abstract:

Using a recent household survey for two cohorts of married women, this paper examines three dimensions of HIV/AIDS knowledge in Bangladesh. HIV/AIDS knowledge is found to differ substantially across cohorts, with females from the younger cohort being far more knowledgeable than the older cohort in all three dimensions. Examining the correlates of HIV/AIDS knowledge, the woman's own education is found to be a strong predictor overall, both in substantive and statistical terms. In some cases, a separate effect is found for spousal education. These findings differ widely across cohorts, however, with education being less strongly associated, substantively and statistically, with HIV/AIDS knowledge for the younger cohort than for the older cohort. While this could simply be due to the issue of HIV/AIDS increasingly becoming a part of daily life of the younger generation, the total education effects, measured as the estimated association times the mean of the respective education variables, are not that different, however. Radio listening also is more strongly associated with HIV/AIDS knowledge for the older generation than the younger generation, again consistent with the younger generation already being more aware of HIV/AIDS in general. Religious affiliation is strongly associated with HIV/AIDS knowledge for the older generation but not for the younger, indicating less resistance to increased HIV/AIDS awareness from religious groups. Decomposing the generational knowledge gap, between about a third and a fourth can be explained by the changes in endowments, including education, religion, and radio listening. Pursuing a detailed decomposition, the explained part of the knowledge gap is found to be driven almost exclusively by the decrease in the "no education" group from the older to the younger cohort. In sum, more than anything else, it is the lack of education for the older cohort relative to the younger cohort that appears to have been driving the generational HIV/AIDS knowledge gap in Bangladesh in recent years.

[†] The findings and interpretations are those of the authors and should not be attributed to the World Bank or any of its member countries or affiliated institutions.

1. Introduction

Apart from – though linked to – poverty, the HIV/AIDS pandemic is probably one of the greatest challenges facing the developing world. While Sub-Saharan Africa remains the epicenter of the global HIV/AIDS pandemic (Eaton, Flishera, and Arob, 2003; UNAIDS/UNICEF/WHO, 2000), other countries, though traditionally experiencing low prevalence of HIV/AIDS, would be well served to try to avoid reaching such high levels, if at all possible. Bangladesh is such a country. Historically experiencing only low HIV/AIDS prevalence, infection rates have increased in recent years (Islam, Mitra, Mian and Vermund, 1999; Azim, Islam, Bogaerts, Mian, Sarker and Fattah, 2000). With a vaccine probably not being available within the foreseeable future, prevention through increased knowledge of the disease and how to avoid it seems like the most effective remedy currently.

Key to such efforts is a better understanding of the determinants of HIV/AIDS knowledge that is, which factors are associated with a relatively higher level of knowledge and which with a relatively lower level of knowledge. Such improved understanding would be useful for at least two reasons. First, from an academic standpoint, while reproductive behavior, including contraceptive use, has received widespread attention in the research community (Bollen, Guilkey and Mroz, 1995; Guilkey and Jayne, 1997; Magadi and Curtis, 2003), HIV/AIDS knowledge – presumably an important factor underlying contraceptive use – has received far less attention so far. Understanding better people's knowledge of HIV/AIDS would seem to be a crucial piece in our understanding of people's reproductive behavior overall. Second, from a public policy and public health perspective, knowledge is key to battling HIV/AIDS. For example, if people don't know that condoms are effective against contracting HIV/AIDS, it does not help to merely increase the supply of condoms. Rather, it is increased

knowledge that is called for. Such increased knowledge, in turn, may be supplied through public health campaigns through radio or television or via banners, brochures and other information in the public domain.

Examining a recent nationally representative household survey for Bangladesh, this paper is an attempt at understanding better what underlies HIV/AIDS knowledge for the case of Bangladesh. In so doing we focus at the importance of own and spousal education but also examine the importance of other factors such as information access / information processing in terms of radio listening, religion and poverty/wealth for a sample of two cohorts of married women. In addition to linear probability models of the determinants of several dimensions of HIV/AIDS knowledge, we also ask what explains the knowledge gap across subgroups: women from the older cohort are found to have relatively less HIV/AIDS knowledge than women from the younger cohort. This part of the analysis decomposes the established subgroup gaps using several specifications for Oaxaca (1973) – Blinder (1973) type decompositions, taking into account recent methodological improvements allowing the individual components to be stochastic by applying an alternative calculation of standard errors and addressing the issue of the results for categorical variables in detailed decompositions depending on the choice of the reference category (Jann, 2008; Yun 2003).

The remainder of this paper is structured as follows. We first provide the analytical framework for studying HIV/AIDS knowledge in Bangladesh. Next, we present the data and methods underlying the empirical analysis of this paper. We then present the results, where after a final section concludes.

2. Analytical Framework

This paper examines the linkages between education and health knowledge in the context of a health production model (Grossman, 1972). Assuming that individuals obtain utility from final health outcomes, health knowledge will serve as an intermediate input. Specifically, we consider a two-person household consisting of a wife and husband in which the wife has preferences over health status¹ (Z_1) and other commodities (Z_2). Alternatively, the set-up may be viewed as a multi-person household, where the focus is on the linkages of education, labor supply and health knowledge investments and the resources of other household members enter the model through contributions of earned and unearned income.² The relative preferences between the two commodities are affected by three factors: education (E), other observed background characteristics including household composition, religious affiliation and geographical location (B), and unobserved characteristics (δ), giving rise to the following utility function:

$$U = u(Z_1, Z_2; E, B, \delta). \quad (1)$$

The utility function is assumed to exhibit the required desirable properties; most importantly it is assumed to be quasi-concave and increasing in its arguments.

The household maximizes utility subject to a set of technological, budget and time constraints. The technological constraints are given by two production functions, f_1 and f_2 , in which outputs of health and all other goods depend on inputs of a market good (X) and the wife's time (T), and are conditional on the wife's education, (E). In addition, health depends on an

¹ Could be either her own health status or, alternatively, the household's joint health status.

² Issues related to intrahousehold bargaining over resources are not incorporated here. A large literature, starting with Manser and Brown (1980) and McElroy and Horney (1981), examines issues related to marriage and household decision-making. One of the main results from this literature is that the bargaining power over resources within the household related to for example child health depends on the opportunities outside of the household. To the extent that bargaining power is correlated with mother's skills and schooling, however, the analyses here will at least capture some elements of the bargaining structure within the household. For a review of family economics, including cooperative household models, see also Bergstrom (1996).

initial, unobserved health endowment, η , and a community specific health related variable, C , which includes health infrastructure, treatment practices, and the local disease environment.

These functions can be expressed as:

$$Z_1 = f_1(X_1, T_1; E, \eta, C), \quad (2)$$

$$Z_2 = f_2(X_2, T_2; E), \quad (3)$$

The household obtains income from engaging in labor activities, supplying H hours of labor at the wage rate W , which is affected by the vector of skills and income from other unearned sources (N), which also depends on skills, through marriage markets and assortative mating.

Income can be spent on market goods such that:

$$W(E)H + N(E) \geq P_1X_1 + P_2X_2. \quad (4)$$

Lastly, the maximization of (1) is subject to a time constraint:

$$T_1 + T_2 + H = K, \quad (5)$$

where K is the maximum time available to the wife.

The wife is assumed to choose T_1 , T_2 , X_1 and X_2 to maximize utility subject to these constraints. Solving the model yields a series of market goods demands and production time supply functions. Our empirical analyses focus on the functions related to health production; these can be represented by the reduced-form equations:

$$X_1^* = x_1(W(S), N(S), P_1, P_2, S, B, \delta, \eta, C) \quad (6)$$

$$T_1^* = t_1(W(S), N(S), P_1, P_2, S, B, \delta, \eta, C). \quad (7)$$

These equations indicate health knowledge demand and health production time supply, respectively.³ The health input (or intermediate output) demand function given by (6) will be estimated in the empirical analyses, examining three alternative dimensions of HIV/AIDS knowledge as specific health inputs (intermediate outputs).

3. Data and Methods

The WBGNS 2006 is the first comprehensive nationally representative survey of gender norms and practices in Bangladesh. It is based on a sample of adults that include married women in the 15-25 and 45-59 year age range, married male heads of households in the 25-50 year age range, and 500 community leaders (such as Union Parishad (UP) members, Imams/Moulvis (religious leaders), primary school teachers and Madrasah teachers). The samples were drawn in two stages. 91 clusters⁴ were selected at the first stage as a subsample of the 361 clusters included in the Bangladesh Demographic and Health Survey (BDHS) of 2004. The second sampling stage selected one adult from each household. Opinion leaders were selected from among those who were resident in and around the cluster, having knowledge of and influences on the people of the cluster. On average 49 adults and 5-6 opinion leaders were interviewed in each cluster. Out of the 49 adults interviewed in a cluster, roughly 16 were married women age 15-25, 16 married women age 45-59 and 17 married men age 25-50. Interviews were conducted in April-May 2006. Of the total sample of 2,974 women, 99 answered “not applicable” to the question on contraceptive use autonomy and are therefore excluded, bringing the effective initial estimation

³ If interested, one could further substitute X_1^* from (6) and T_1^* from (7) into (2) to obtain the reduced form health (output) production function. Again, the focus of this paper is on intermediate output demand (in the form of health knowledge) and so we skip this step here.

⁴ A cluster is a census defined village that corresponds roughly to a mouza village in rural areas and a census block (part of a mohollah) in an urban area.

sample down to 2,875 women. Explanatory variables are missing for some observations, which cause a drop in sample sizes for the final/effective analyses samples of 16 observations (or less than 0.6 percent. Our final sample thus consists of 2,859 women. Sample drops of these magnitudes do not seem to be cause for concern regarding the representativeness of the estimation samples. The means for the analyses samples are reported in Table 1.

Our dependent variable is based on the responses to the question “To what extent would you say your preferences/opinions are taken into consideration in making the following types of decision within your household – Whether to use contraception?” Again, we first exclude females who responded “not applicable” (causing the initial sample of 2,875 women to drop by 99 observations). From the five other possible responses (“Always,” “Most of the time,” “Some of the time,” “Rarely,” and “Never”) we create a binary variable for whether or not the woman’s preferences were always taken into account, which we interpret as perfect female contraceptive autonomy.

Based on the theoretical literature on the pathways to change in attitudes about gender equality discussed previously, we use a rich set of explanatory variables. Our focal explanatory variables are own and spousal education, which are created as a set of educational attainment dummy variables (coded as two dummies for some primary or primary completed and some secondary and above, respectively, with no education being the reference category). Additional explanatory variables include age and age squared, whether the woman listens to the radio regularly, religion of the household head (indicator variable for Muslim household head), a set of five dummies for which wealth quintile the household belongs to, an urban dummy, and a set of regional dummy variables.

Turning to the descriptive analysis, HIV/AIDS knowledge is seen to be higher for the

younger than the older cohort for all three dimensions of knowledge (Tables 1-3). For overall awareness, the incidence for the younger cohort is 82.2 percent but only 52.2 percent for the older cohort. Similarly, when it comes to knowing that HIV/AIDS is preventable, the incidence for the younger cohort is 72.2 but only 54.1 percent for the older cohort. Lastly, when it comes to knowing that condoms specifically help avoid contracting HIV/AIDS, this knowledge is shared by more than half, at 51.2 percent, among the younger cohort but only about a third, at 32.8 percent, among the older cohort.

What might be the reason for these overwhelming differences in HIV/AIDS knowledge across the two cohorts of women? Tables 1-3 hint at some possible answers. Most obviously, the younger cohort is far better educated in almost all cases. For the case of general AIDS awareness, for example, the “No education” category is a massive 65.5 percent for the older cohort but only 23.7 percent for the younger cohort (Table 1). The same goes for spousal education, where the younger cohort also is better off in almost all cases. The younger cohort is also far more exposed to information, as indicated by radio listening: again for the case of general AIDS awareness, 29.8 percent of the younger generation, but only 20.8 percent of the older, listens to the radio frequently. Do these correlations hold up when other potentially factors, such as geographical location factors, are controlled for? That is the focus of the multivariate analysis, the discussion of which we now turn.

[Table 1 about here]

[Table 2 about here]

[Table 3 about here]

The conceptual framework discussed in the previous section, as well as the descriptive analysis, suggests that own and spousal education can directly affect HIV/AIDS knowledge and also suggests additional factors that are potentially important for HIV/AIDS knowledge. The first part of the multivariate empirical analysis will examine these relationships, using linear approximations of HIV/AIDS knowledge as given by equation (1). One potentially important econometric issue here is that wives' and/or husbands' education may be endogenous. The main concern here is possible omitted variables bias. Preferences and ability, for example, are unobserved and at the same time determine, at least to some extent, both educational attainment and HIV/AIDS knowledge. However, as we do not have available in this dataset any variables that may potentially act as instruments, it does not appear feasible to try to address this problem using instrumental variables methods. The effect of any omitted variables will therefore be captured by the error term, possibly causing omitted variables bias. As a result, we must interpret any subsequent results with caution and hence not give them a causal interpretation but rather as merely reflecting associations with HIV/AIDS knowledge.

Turning next to the estimation method, the linear probability model (LPM) yields a more robust alternative to the also widely used probit and logit models both of which are founded on rather strong functional form assumptions and also appears appropriate here for several other reasons, despite its potential shortcomings.⁵ Hence, the LPM is our preferred estimation method – but we also compare the results for the LPM with those obtained using the probit model to check the robustness of results. Further, so as to allow for arbitrary heteroskedasticity, the

⁵ While there may be some concern about using the LPM due to the possibility of the predicted probabilities falling outside the (0,1)-range and heteroskedasticity being present by default, it can be argued that the LPM still approximates the response probability well. This is particularly the case if (1) the main purpose is to estimate the partial effect of a given regressor on the response probability, averaged across the distribution of the other regressors, (2) most of the regressors are discrete and take on only a few values and/or (3) heteroskedasticity-robust standard errors are used in place of regular standard errors (Wooldridge, 2002). All three factors seem to work in favor of the LPM for the purposes of the application here.

estimations will be carried out using Huber-White standard errors (Huber, 1967; White, 1980). Additionally, so as to allow for the possibility that observations are correlated within communities the standard errors are also adjusted for within-cluster correlation (Froot, 1989; Williams, 2000).

Again, our focus is on differences in different dimensions of HIV/AIDS knowledge and their determinants across the two cohorts of married women surveyed for WBGNS 2006. There are several reasons why it might be useful to apply the previously discussed empirical methodology to both of the two cohorts separately. One might conjecture, for example, that if norms towards sexuality have generally become more responsive in recent years, then increases in education would also be more likely to be associated with a higher degree of HIV/AIDS knowledge, as well. Additionally, more recent education is likely to contain more direct information related to HIV/AIDS knowledge, also. In other words, there is a case to be made that education has become more productive in terms of creating HIV/AIDS knowledge.

In addition to examining the determinants of HIV/AIDS knowledge across cohorts, it would seem potentially useful to push the analysis further, still, by examining the composition of the intergenerational gap in the various dimensions of HIV/AIDS knowledge established in the descriptive analysis in more detail. Specifically, this amounts to examining to which extent the observed gaps in the three types of HIV/AIDS knowledge are attributable to changes in the observable characteristics, to changes in the responses to those characteristics, and to other factors (three-fold division)⁶ and, relatedly, to which extent the observed knowledge gaps are due to observable and unobservable characteristics (two-fold division).⁷ This analysis will be

⁶ See Winsborough and Dickinson (1971).

⁷ See Oaxaca (1973), Blinder (1973), Cotton (1988), Reimers (1983), and Neumark (1988) for different approaches.

pursued as an Oaxaca (1973)-Blinder (1973) type decomposition, using several different specifications for the baseline (i.e., “absence of discrimination”) model.⁸ The standard errors of the individual components are computed according to the method detailed in Jann (2008), which extends the earlier method developed in Oaxaca and Ransom (1998) to deal with stochastic regressors. In addition to examining the overall composition of the established intergenerational HIV/AIDS knowledge gaps, it might be instructive to perform detailed decompositions, as well, whereby it would be possible to see which explanatory variables contribute the most to the three- and/or two-fold overall decompositions. An issue here is that while the overall decompositions are always identified, the results for categorical variables in detailed decompositions depend on the choice of the reference category (Oaxaca and Ransom 1999). A possible solution to this problem is to apply the deviation contrast transformation to the estimates before conducting the decomposition (Yun 2003); this is also the approach pursued here.

4. Results

This section reviews the results from the multivariate models of the three different dimensions of HIV/AIDS knowledge as discussed in the previous section. We will first review the main results for the three different dimensions overall and then highlight any special results pertaining specifically to any of the three dimensions.

The results from linear probability models of HIV/AIDS knowledge indicate that own education confers HIV/AIDS knowledge overall (Tables 4-6). Further, the associations are strong and statistically significant in many cases. Adding spousal education reveals some

⁸ We will exclude the age variables from this analysis, since this method requires “overlap” of the explanatory variables.

evidence of a separate effect for spousal education, which further dampens the association from own education. Overall, the association between education and HIV/AIDS knowledge is greater for the older cohort than for the younger cohort. In turn, this suggests that over time the importance of education decreases, as education becomes more common (as is the case in Bangladesh, as discussed in the previous section).⁹ In other words, as education becomes more common, other factors determine the attitudes of individuals.

In this case, these other factors include geographical location and, to some extent, poverty/wealth. Specifically, HIV/AIDS knowledge of the younger cohort is more responsive to urban/rural and regional location. On the poverty/wealth side, while the estimated associations that are statistically significant are frequently smaller for the younger cohort, the estimated poverty/wealth associations for the younger cohort are more frequently statistically significant, i.e. non-zero – and large in magnitude, as well.

[Table 4 about here]

[Table 5 about here]

[Table 6 about here]

We find an asymmetric relationship between religious affiliation and HIV/AIDS knowledge in that large, negative and statistically significant relationships exists between Muslim religious background and HIV/AIDS knowledge (except for condom use knowledge, which comes out statistically insignificant for both cohorts). An asymmetry is also detected regarding radio listening, where strong, statistically significant associations are found for both cohorts when it comes to general awareness, though the magnitude is greater for the older cohort.

⁹ This result is similar to findings reported in Brewster and Padavic (2000); they found that over time the importance of education in norm construction in the US became less strong as education became more common.

When it comes to knowing that HIV/AIDS is preventable, though, radio listening is not statically significant for the older cohort but is for the younger cohort. In other words, while the older cohort gets more from listening to the radio in terms of general awareness (perhaps because they have less access to information in general), *conditional* on being aware of HIV/AIDS in general, they do not get to the “next stage” of knowledge, namely that HIV/AIDS is preventable.

Again, while the linear probability model appears appropriate and, as we argued earlier, perhaps even preferable for this application – since it imposes only relatively modest restrictions on the estimated relationship in terms of functional form, relative to the probit or logit model – it would still seem useful to verify that the previous results are robust to the estimation method. Since the probit model is widely used and roughly comparable to the results for the logit model (subject to a scaling factor), we pursue this alternative estimation method as well as a sensitivity analysis. The results (not shown, available upon request) reveal some differences in magnitude but are qualitatively very similar. Hence, the previous results are essentially robust to estimating instead by the probit model – including the direction and statistical significance of the estimated associations.

Summing up, after establishing the existence of an intergenerational gap in HIV/AIDS knowledge across three dimensions, the previous analysis examined the determinants of that knowledge across the two cohorts of women. Again, it would seem potentially useful to also examine the extent to which the observed gaps in HIV/AIDS knowledge are attributable to changes in the observable characteristics, to changes in the responses to those characteristics, and to other factors and, relatedly, to which extent the observed knowledge gap is due to observable and unobservable characteristics. We therefore next turn to an Oaxaca (1973)-Blinder (1973)

type decomposition, using several different specifications for the baseline (i.e., “absence of discrimination”) model.

The decomposition analysis are two-fold – first, examining overall decompositions and, second, examining detailed decompositions, whereby the HIV/AIDS knowledge differential may be decomposed into the contributions from specific explanatory variables. The results from the overall decompositions are shown in Table 7. The top panel gives the results for general HIV/AIDS awareness, the middle panel gives the results for knowledge that HIV/AIDS is preventable, while the bottom panel gives the results for whether condom use helps preventing HIV/AIDS. The first column then gives the three-fold decomposition result, while the five next columns give the two-fold decomposition results for different alternative specifications of the “absence of discrimination” group.

Starting with the three-fold decomposition of the HIV/AIDS knowledge gap, the first thing to note is that the raw gaps, ranging between about 18 to about 30 percentage-points, are both substantively large and statistically significant. Also, it is mainly attributable to the coefficients¹⁰, which is also the only part that is statistically significant (except for general awareness, where the endowment part is statistically significant, as well). Moving to the two-fold decompositions of the knowledge gap, the unexplained¹¹ part of the gap therefore is greater than the explained part, though the latter still accounts for a substantial part, ranging from virtually zero to almost half, depending on the specification of the “absence-of-discrimination” model. Hence, a substantial part of the difference in HIV/AIDS knowledge across the two cohorts can be explained by the change in observable characteristics, while an even larger part

¹⁰ This is the part that is frequently interpreted as “discrimination” in decompositions of gender wage differentials.

¹¹ Again, this part is frequently interpreted as “discrimination” in decompositions of gender wage differentials.

cannot be explained. One might interpret the latter as changes in AIDS/HIV knowledge in the society over time more generally. Again, here also the unexplained part is statistically significant across all dimensions of HIV/AIDS knowledge, while the explained part of the gap is only statistically significant for general awareness (all specifications) and for the Pooled specification for the two last knowledge dimensions.

[Table 7 about here]

While the overall decompositions helped illuminate a bit more how HIV/AIDS knowledge differs across the two cohorts of Bangladeshi women examined here, detailed decompositions may yield additional insights. Specifically, this analysis will allow us to pinpoint exactly which explanatory variables contribute most to the intergenerational gap in HIV/AIDS knowledge. Also, while the explained parts of the knowledge gaps were mostly statistically insignificant overall, the contributions from individual explanatory variables may still be statistically significant. The results from the detailed decompositions are shown in Tables 7-9. Again, in interpreting the signs of a given coefficient here, a positive sign implies that the explanatory variable in question hurts the disadvantaged group (that is, the older cohort, which has the less favorable HIV/AIDS knowledge as compared to the younger cohort) – keeping in mind that we are now estimating the models with the full set of dummies (“effects coding”) to address the identification issues pertaining to detailed decompositions raised in Oaxaca and Ransom (1999).¹²

¹² Specifically, we apply the deviation contrast transformation to the estimates before conducting the decomposition (Yun 2003).

The results from Tables 7-10 reveal that the effects from specific individual explanatory variables do in fact “drown” in the aggregated explained part reported earlier, which, again, was not statistically significant overall in many cases. Considering own education, it is not the difference in educational attainment for the higher levels of education that matters in explaining the difference in the knowledge gaps across cohorts (these are frequently insignificant, in magnitude as well as statistically) but rather the fact that the older cohort has a greater share who has not completed any education: having a larger share of the no education completed group is what really hurts the older cohort, in terms of their less favorable HIV/AIDS knowledge. Most other variables are either statistically or substantively significant – or both.

[Table 8 about here]

[Table 9 about here]

[Table 10 about here]

5. Conclusion

Using a recent household survey for two cohorts of married women, this paper examines three dimensions of HIV/AIDS knowledge in Bangladesh. HIV/AIDS knowledge is found to differ substantially across cohorts, with females from the younger cohort being far more knowledgeable than the older cohort in all three dimensions. Examining the correlates of HIV/AIDS knowledge, the woman’s own education is found to be a strong predictor overall, both in substantive and statistical terms. In some cases, a separate effect is found for spousal education.

These findings differ widely across cohorts, however, with education being less strongly associated, substantively and statistically, with HIV/AIDS knowledge for the younger cohort than for the older cohort. While this could simply be due to the issue of HIV/AIDS increasingly becoming a part of daily life of the younger generation, the total education effects, measured as the estimated association times the mean of the respective education variables, are not that different, however. Radio listening also is more strongly associated with HIV/AIDS knowledge for the older generation than the younger generation, again consistent with the younger generation already being more aware of HIV/AIDS in general. Religious affiliation is strongly associated with HIV/AIDS knowledge for the older generation but not for the younger, indicating less resistance to increased HIV/AIDS awareness from religious groups.

Decomposing the generational knowledge gap, between about a third and a fourth can be explained by the changes in endowments, including education, religion, and radio listening. Pursuing a detailed decomposition, the explained part of the knowledge gap is found to be driven almost exclusively by the decrease in the “no education” group from the older to the younger cohort. In sum, more than anything else, it is the lack of education for the older cohort relative to the younger cohort that appears to have been driving the generational HIV/AIDS knowledge gap in Bangladesh in recent years.

These findings have important policy implications. Most importantly, education appears to be an important input in the creation of HIV/AIDS knowledge overall. Hence, education should remain a priority in combating HIV/AIDS. Yet, while the total effect of education (as measured by the estimated associations multiplied by the means for the different education levels) does not appear to have changed much, there is some evidence of a relative decrease in the productivity of education in terms of improving HIV/AIDS knowledge in recent years. In

turn, this points towards possibly redesigning those parts of the curricula that deal with these HIV/AIDS issues to make them more targeted and effective.

Also policy relevant, though also interesting for the academic community, is an improved understanding of HIV/AIDS knowledge and reproductive behavior, especially in terms of the use of contraception. In other words, do people “practice as they preach,” so that they practice safe sex when they have knowledge of HIV/AIDS? Though rich and comprehensive in many ways, the dataset examined here was originally collected for a specific (and different) purpose, so that we are not able to link HIV/AIDS knowledge and current contraceptive use. Our hope is that future data collection efforts will ensure that this important linkage can be examined for the case of Bangladesh.

References:

- Azim, T, M.N. Islam, J. Bogaerts, M.A.H. Mian, M.S. Sarker and K.R. Fattah. 2000.
“Prevalence of HIV and syphilis among high risk groups in Bangladesh.” *AIDS* 14: 210-211.
- Bergstrom, Theodore C. (1996) “Economics in a Family Way,” *Journal of Economic Literature*, 34(4): 1903-34.
- Blinder, A.S. 1973. “Wage Discrimination: Reduced Form and Structural Estimates.” *The Journal of Human Resources* 8: 436-455.
- Bollen, Kenneth A, David K. Guilkey and Thomas A. Mroz. 1995. “Binary Outcomes and Endogenous Explanatory Variables: Tests and Solutions with an Application to the Demand for Contraceptive Use in Tunisia.” *Demography* 32(1): 111-131.
- Cotton, J. 1988. “On the Decomposition of Wage Differentials.” *The Review of Economics and Statistics* 70: 236-243.
- Eaton, L., J. Flishera, and L.E. Arob. 2003. “Unsafe sexual behavior in South African Youth.” *Social Science and Medicine* 56(1).
- Froot, K. A. 1989. “Consistent Covariance Matrix Estimation with Cross-sectional Dependence and Heteroskedasticity in Financial Data.” *Journal of Financial and Quantitative Analysis* 24:333–355.
- Grossman, Michael (1972) “On the Concept of Health Capital and the Demand for Health,” *Journal of Political Economy*, 80(2): 223-55.
- Guilkey, David K. and Susan Jayne. 1997. “Fertility transition in Zimbabwe: Determinants of contraceptive use and method choice.” *Population Studies* 51: 173-189.
- Huber, P. J. 1967. ”The Behavior of Maximum Likelihood Estimates under Nonstandard

- Conditions.” In: *Proceedings of the Fifth Berkeley Symposium on Mathematical Statistics and Probability* Vol. 1, Berkeley, CA: University of California Press.
- Islam, M., A.K. Mitra, A.H. Mian and S.H. Vermund. 1999. “AIDS in Bangladesh: a national surveillance.” *International Journal of STDs and AIDS* 10:471-474.
- Jann, B. (2008). The Blinder-Oaxaca Decomposition. ETH Zurich Sociology Working Paper No. 5. Available from: <http://ideas.repec.org/p/ets/wpaper/5.html>.
- Magadi, Monica A. and Siân L. Curtis. 2003. “Trends and Determinants of Contraceptive Method Choice in Kenya.” *Studies in Family Planning* 34(3): 149-159.
- Manser, Marilyn and Murray Brown (1980) “Marriage and Household Decision-making: A Bargaining Analysis,” *International Economic Review*, 21(1): 31-44.
- McElroy, Marjorie B. and Mary Jean Horney (1981) “Nash Bargained Household Decisions: Toward a Generalization of the Theory of Demand,” *International Economic Review*, 22(2): 333-49.
- Neumark, D. 1988. “Employers’ Discriminatory Behavior and the Estimation of Wage Discrimination.” *The Journal of Human Resources* 23: 279-295.
- Oaxaca, R. 1973. “Male-Female Wage Differentials in Urban Labor Markets. *International Economic Review* 14: 693-709.
- Oaxaca, R.L., Ransom, M.R. 1998. “Calculation of approximate variances for wage Decomposition differentials.” *Journal of Economic and Social Measurement* 24: 55-61.
- Oaxaca, R.L. and M.R. Ransom. 1999. “Identification in Detailed Wage Decompositions.” *The Review of Economics and Statistics* 81: 154-157.

Reimers, C.W. 1983. Labor Market Discrimination Against Hispanic and Black Men. *The Review of Economics and Statistics* 65: 570-579.

White, H. 1980. "A Heteroskedasticity-Consistent Covariance Matrix Estimator and a Direct Test for Heteroskedasticity." *Econometrica* 48(4):817–830.

Williams, R. L. 2000. "A Note on Robust Variance Estimation for Cluster-correlated Data." *Biometrics* 56:645–646.

Yun, M.-S. 2003. "A Simple Solution to the Identification Problem in Detailed Wage Decompositions." IZA Discussion Paper No. 836.

Table 1. Descriptive Statistics: AIDS Awareness

	<i>Older cohort:</i>		<i>Younger cohort:</i>	
	<i>Mean</i>	<i>Std Dev</i>	<i>Mean</i>	<i>Std Dev</i>
<i>Dependent variable:</i>				
Ever heard about AIDS	0.524	0.500	0.822	0.383
<i>Explanatory variables:</i>				
age	49.665	4.157	21.518	2.894
No education	0.655	0.475	0.237	0.426
Some primary	0.136	0.342	0.172	0.377
Primary	0.073	0.260	0.159	0.365
Some secondary	0.089	0.285	0.328	0.470
Secondary and above	0.047	0.212	0.105	0.306
No education (Spouse)	0.506	0.500	0.329	0.470
Some primary (Spouse)	0.112	0.316	0.151	0.358
Primary (Spouse)	0.089	0.285	0.115	0.319
Some secondary (Spouse)	0.125	0.331	0.235	0.424
Secondary and above (Spouse)	0.167	0.373	0.170	0.376
Listens to radio	0.208	0.406	0.298	0.457
Islam	0.909	0.288	0.933	0.250
Urban	0.478	0.500	0.496	0.500
Barisal	0.067	0.250	0.062	0.242
Chittagong	0.181	0.385	0.159	0.366
Dhaka	0.331	0.471	0.308	0.462
Khulna	0.116	0.320	0.132	0.339
Rajshahi	0.236	0.425	0.279	0.449
Sylhet	0.069	0.254	0.059	0.236
N	1421		1540	

Notes: Calculations incorporate sampling weights and also adjust for within-community correlation/clustering (Froot, 1989; Williams, 2000).

Source: World Bank Survey on Gender Norms in Bangladesh (2006).

Table 2. Descriptive Statistics: HIV/AIDS Can Be Avoided

	<i>Older cohort:</i>		<i>Younger cohort:</i>	
	<i>Mean</i>	<i>Std Dev</i>	<i>Mean</i>	<i>Std Dev</i>
<i>Dependent variable:</i>				
Can avoid HIV/AIDS	0.541	0.499	0.726	0.446
<i>Explanatory variables:</i>				
age	48.950	3.820	21.520	2.883
No education	0.504	0.500	0.196	0.397
Some primary	0.158	0.365	0.160	0.367
Primary	0.098	0.297	0.151	0.358
Some secondary	0.155	0.362	0.367	0.482
Secondary and above	0.085	0.279	0.126	0.332
No education (Spouse)	0.373	0.484	0.283	0.451
Some primary (Spouse)	0.119	0.324	0.149	0.356
Primary (Spouse)	0.089	0.285	0.111	0.315
Some secondary (Spouse)	0.145	0.352	0.260	0.439
Secondary and above (Spouse)	0.274	0.446	0.197	0.398
Listens to radio	0.290	0.454	0.327	0.469
Islam	0.876	0.330	0.931	0.253
Urban	0.575	0.495	0.543	0.498
Barisal	0.074	0.262	0.066	0.249
Chittagong	0.168	0.374	0.164	0.370
Dhaka	0.411	0.492	0.326	0.469
Khulna	0.125	0.331	0.134	0.341
Rajshahi	0.146	0.353	0.250	0.433
Sylhet	0.076	0.265	0.060	0.238
N	678		1208	

Notes: Calculations incorporate sampling weights and also adjust for within-community correlation/clustering (Froot, 1989; Williams, 2000).

Source: World Bank Survey on Gender Norms in Bangladesh (2006).

Table 3. Descriptive Statistics: Using Condoms Help Avoid Getting HIV/AIDS (Full Sample, Older Cohort, and Younger Cohort)

	<i>Older cohort:</i>		<i>Younger cohort:</i>	
	<i>Mean</i>	<i>Std Dev</i>	<i>Mean</i>	<i>Std Dev</i>
<i>Dependent variable:</i>				
Use condoms	0.328	0.470	0.512	0.500
<i>Explanatory variables:</i>				
age	48.702	3.725	21.562	2.846
No education	0.407	0.492	0.165	0.371
Some primary	0.146	0.354	0.139	0.346
Primary	0.098	0.298	0.138	0.345
Some secondary	0.207	0.406	0.401	0.490
Secondary and above	0.142	0.350	0.157	0.364
No education (Spouse)	0.333	0.472	0.236	0.425
Some primary (Spouse)	0.098	0.298	0.133	0.339
Primary (Spouse)	0.085	0.280	0.102	0.303
Some secondary (Spouse)	0.130	0.337	0.286	0.452
Secondary and above (Spouse)	0.354	0.479	0.244	0.430
Listens to radio	0.299	0.458	0.365	0.482
Islam	0.842	0.366	0.919	0.272
Urban	0.648	0.478	0.573	0.495
Barisal	0.073	0.261	0.065	0.247
Chittagong	0.157	0.364	0.162	0.368
Dhaka	0.443	0.498	0.339	0.474
Khulna	0.107	0.310	0.136	0.343
Rajshahi	0.145	0.352	0.253	0.435
Sylhet	0.075	0.263	0.046	0.209
N	320		848	

Notes: Calculations incorporate sampling weights and also adjust for within-community correlation/clustering (Froot, 1989; Williams, 2000).

Source: World Bank Survey on Gender Norms in Bangladesh (2006).

Table 4. Linear Probability Model Results: AIDS Awareness

	<i>Older cohort:</i>		<i>Younger cohort:</i>	
Age:				
Age	0.027 [0.072]	0.025 [0.073]	0.017 [0.041]	0.02 [0.041]
Age squared	0.0001 [0.001]	0.0001 [0.001]	0.0001 [0.001]	0.0001 [0.001]
Own education:				
Some primary	0.142*** [0.041]	0.129*** [0.042]	0.068** [0.033]	0.058 [0.035]
Primary	0.180*** [0.048]	0.152*** [0.050]	0.079* [0.042]	0.069 [0.043]
Some secondary	0.267*** [0.048]	0.234*** [0.052]	0.199*** [0.032]	0.173*** [0.038]
Secondary and above	0.205*** [0.052]	0.153*** [0.054]	0.179*** [0.036]	0.153*** [0.050]
Spousal education:				
Some primary		0.105** [0.045]		0.031 [0.041]
Primary		0.0001 [0.054]		-0.003 [0.046]
Some secondary		0.021 [0.040]		0.071** [0.030]
Secondary and above		0.096** [0.042]		0.045 [0.042]
Information access/processing:				
Listens to radio	0.133*** [0.034]	0.132*** [0.036]	0.077*** [0.021]	0.078*** [0.021]
Religion of household head:				
Islam	-0.162** [0.072]	-0.149** [0.074]	0.03 [0.059]	0.033 [0.058]
Poverty / Wealth:				
Second-to-lowest asset score decile	0.011 [0.046]	0.013 [0.046]	0.118*** [0.041]	0.114*** [0.042]
Median asset score decile	0.141*** [0.041]	0.138*** [0.042]	0.119** [0.046]	0.113** [0.048]
Second-to-highest asset score decile	0.292*** [0.044]	0.284*** [0.044]	0.176*** [0.039]	0.170*** [0.040]
Highest asset score decile	0.342*** [0.057]	0.324*** [0.056]	0.181*** [0.038]	0.168*** [0.039]
Geography:				
Urban	0.112*** [0.041]	0.114*** [0.041]	0.151*** [0.027]	0.150*** [0.027]
Barisal	-0.164*** [0.054]	-0.184*** [0.055]	-0.06 [0.039]	-0.066* [0.038]
Chittagong	-0.190*** [0.064]	-0.198*** [0.063]	-0.054 [0.041]	-0.053 [0.040]
Khulna	-0.135** [0.064]	-0.140** [0.064]	-0.070** [0.030]	-0.072** [0.029]
Rajshahi	-0.243*** [0.057]	-0.243*** [0.058]	-0.160*** [0.044]	-0.156*** [0.043]
Sylhet	-0.194*** [0.051]	-0.202*** [0.053]	-0.077* [0.040]	-0.075* [0.039]
Constant	0.177	0.207	0.315	0.274

	[1.880]	[1.897]	[0.426]	[0.420]
R ²	0.31	0.32	0.18	0.19
N	1421	1421	1540	1540

Notes: Terms in brackets are robust Huber-White (Huber, 1967; White, 1980) standard errors. Estimations also incorporate sampling weights and adjust for within-community correlation/clustering (Froot, 1989; Williams, 2000). Reference groups are "None" (education), "Lowest asset score decile" (poverty/wealth), "Dhaka" (region). *: statistically significant at 10 percent; **: statistically significant at 5 percent; ***: statistically significant at 1 percent.

Source: World Bank Survey on Gender Norms in Bangladesh (2006).

Table 5. Linear Probability Model Results: HIV/AIDS Can Be Avoided

	<i>Older cohort:</i>		<i>Younger cohort:</i>	
Age:				
Age	-0.01 [0.145]	-0.008 [0.146]	0.11 [0.084]	0.106 [0.084]
Age squared	0.0001 [0.001]	0.0001 [0.001]	-0.003 [0.002]	-0.002 [0.002]
Own education:				
Some primary	0.092 [0.063]	0.108* [0.064]	0.024 [0.063]	0.014 [0.060]
Primary	0.1 [0.074]	0.132* [0.078]	0.025 [0.078]	0.005 [0.071]
Some secondary	0.266*** [0.068]	0.288*** [0.069]	0.155** [0.068]	0.106 [0.066]
Secondary and above	0.390*** [0.077]	0.401*** [0.095]	0.181** [0.072]	0.058 [0.081]
Spousal education:				
Some primary		-0.03 [0.067]		0.016 [0.047]
Primary		0.004 [0.071]		0.007 [0.059]
Some secondary		-0.108 [0.078]		0.120** [0.051]
Secondary and above		-0.031 [0.081]		0.191*** [0.058]
Information access/processing:				
Listens to radio	0.018 [0.051]	0.016 [0.050]	0.093*** [0.032]	0.099*** [0.031]
Religion of household head:				
Islam	-0.210** [0.098]	-0.210** [0.096]	-0.104 [0.081]	-0.11 [0.081]
Poverty / Wealth:				
Second-to-lowest asset score decile	-0.061 [0.102]	-0.059 [0.102]	0.031 [0.051]	0.023 [0.049]
Median asset score decile	0.007 [0.094]	0.008 [0.093]	0.177*** [0.062]	0.163*** [0.059]
Second-to-highest asset score decile	0.017 [0.081]	0.024 [0.080]	0.096* [0.051]	0.068 [0.051]
Highest asset score decile	0.042 [0.086]	0.055 [0.086]	0.212*** [0.062]	0.164*** [0.060]
Geography:				
Urban	0.136*** [0.046]	0.137*** [0.045]	0.101*** [0.032]	0.106*** [0.031]
Barisal	-0.149** [0.063]	-0.144** [0.066]	-0.107*** [0.034]	-0.120*** [0.039]
Chittagong	-0.136 [0.098]	-0.135 [0.097]	-0.068 [0.064]	-0.057 [0.063]
Khulna	-0.192*** [0.062]	-0.180*** [0.061]	-0.053 [0.045]	-0.049 [0.044]
Rajshahi	-0.027 [0.077]	-0.019 [0.079]	-0.021 [0.043]	-0.006 [0.041]
Sylhet	-0.116* [0.066]	-0.109* [0.065]	-0.269*** [0.040]	-0.250*** [0.044]
Constant	1.098	1.051	-0.574	-0.546

	[3.656]	[3.686]	[0.921]	[0.918]
R ²	0.14	0.15	0.13	0.14
N	678	678	1208	1208

Notes: Terms in brackets are robust Huber-White (Huber, 1967; White, 1980) standard errors. Estimations also incorporate sampling weights and adjust for within-community correlation/clustering (Froot, 1989; Williams, 2000). Reference groups are "None" (education), "Lowest asset score decile" (poverty/wealth), "Dhaka" (region). *: statistically significant at 10 percent; **: statistically significant at 5 percent; ***: statistically significant at 1 percent.

Source: World Bank Survey on Gender Norms in Bangladesh (2006).

Table 6. Linear Probability Model Results: Using Condoms Help Avoid Getting HIV/AIDS

	<i>Older cohort:</i>		<i>Younger cohort:</i>	
Age:				
Age	-0.093	-0.072	-0.007	-0.001
	[0.165]	[0.157]	[0.099]	[0.097]
Age squared	0.001	0.0001	0.0001	0.0001
	[0.002]	[0.002]	[0.002]	[0.002]
Own education:				
Some primary	0.064	0.073	0.05	0.028
	[0.079]	[0.086]	[0.080]	[0.080]
Primary	0.202**	0.174	-0.009	-0.035
	[0.090]	[0.106]	[0.090]	[0.089]
Some secondary	0.146*	0.103	-0.004	-0.056
	[0.080]	[0.095]	[0.075]	[0.079]
Secondary and above	0.098	0.019	0.076	-0.01
	[0.090]	[0.105]	[0.094]	[0.114]
Spousal education:				
Some primary		-0.132		0.092
		[0.104]		[0.063]
Primary		0.056		0.114
		[0.116]		[0.080]
Some secondary		-0.009		0.118**
		[0.107]		[0.054]
Secondary and above		0.108		0.164*
		[0.088]		[0.086]
Information access/processing:				
Listens to radio	0.019	-0.002	-0.058	-0.052
	[0.060]	[0.058]	[0.063]	[0.062]
Religion of household head:				
Islam	-0.062	-0.069	0.044	0.032
	[0.075]	[0.068]	[0.090]	[0.084]
Poverty / Wealth:				
Second-to-lowest asset score decile	-0.017	-0.024	0.0001	-0.005
	[0.180]	[0.173]	[0.070]	[0.068]
Median asset score decile	0.015	-0.027	-0.027	-0.052
	[0.191]	[0.187]	[0.074]	[0.068]
Second-to-highest asset score decile	0.194	0.147	0.124*	0.085
	[0.162]	[0.157]	[0.070]	[0.066]
Highest asset score decile	0.109	0.047	0.113	0.072
	[0.170]	[0.169]	[0.083]	[0.079]
Geography:				
Urban	-0.043	-0.04	-0.048	-0.044
	[0.061]	[0.061]	[0.047]	[0.048]
Barisal	-0.183**	-0.181**	-0.262***	-0.267***
	[0.080]	[0.083]	[0.083]	[0.086]
Chittagong	0.291**	0.306**	0.082	0.088
	[0.129]	[0.132]	[0.061]	[0.060]
Khulna	0.281***	0.291***	0.056	0.063
	[0.088]	[0.089]	[0.074]	[0.073]
Rajshahi	0.283***	0.290***	0.254***	0.268***
	[0.102]	[0.100]	[0.077]	[0.075]
Sylhet	-0.09	-0.065	-0.245***	-0.239***

Constant	[0.102] 3.021 [4.233]	[0.095] 2.511 [4.017]	[0.077] 0.381 [1.025]	[0.078] 0.306 [1.013]
R ²	0.23	0.25	0.11	0.12
N	320	320	848	848

Notes: Terms in brackets are robust Huber-White (Huber, 1967; White, 1980) standard errors. Estimations also incorporate sampling weights and adjust for within-community correlation/clustering (Froot, 1989; Williams, 2000). Reference groups are "None" (education), "Lowest asset score decile" (poverty/wealth), "Dhaka" (region). *: statistically significant at 10 percent; **: statistically significant at 5 percent; ***: statistically significant at 1 percent.

Source: World Bank Survey on Gender Norms in Bangladesh (2006).

Table 7. Overall Decompositions across Two Cohorts of Women: AIDS Awareness, HIV/AIDS Can Be Avoided, and Using Condoms Help Avoid Getting HIV/AIDS

	<i>Tree-fold Decomposition:</i>	<i>Two-fold Decomposition: Weights/"Absence-of-discrimination" model:</i>				
		<i>0</i>	<i>1</i>	<i>0.5</i>	<i>Rel. group size</i>	<i>Pooled</i>
AIDS Awareness:						
Mean prediction high (H):	0.822***					
Mean prediction low (L):	0.524***					
Raw differential (R) {H-L}:	0.298***					
- due to endowments (E):	0.084***					
- due to coefficients (C):	0.235***					
- due to interaction (CE):	-0.02					
Unexplained (U){C+(1-D)CE}:		0.215***	0.235***	0.225***	0.226***	0.159***
Explained (V) {E+D*CE}:		0.084***	0.063***	0.073***	0.073***	0.139***
% unexplained {U/R}:		72	78.8	75.4	75.6	53.4
% explained (V/R):		28	21.2	24.6	24.4	46.6
HIV/AIDS Can Be Avoided:						
Mean prediction high (H):	0.726***					
Mean prediction low (L):	0.541***					
Raw differential (R) {H-L}:	0.185***					
- due to endowments (E):	0.048					
- due to coefficients (C):	0.186***					
- due to interaction (CE):	-0.048					
Unexplained (U){C+(1-D)CE}:		0.138***	0.186***	0.162***	0.169***	0.12***
Explained (V) {E+D*CE}:		0.048	-0.001	0.024	0.017	0.066***
% unexplained {U/R}:		74.2	100.4	87.3	90.9	64.5
% explained (V/R):		25.8	-0.4	12.7	9.1	35.5
Using Condoms Help Avoid Getting HIV/AIDS:						
Mean prediction high (H):	0.512***					
Mean prediction low (L):	0.328***					
Raw differential (R) {H-L}:	0.184***					
- due to endowments (E):	0.045					
- due to coefficients (C):	0.174***					
- due to interaction (CE):	-0.035					
Unexplained (U){C+(1-D)CE}:		0.139***	0.174***	0.156***	0.163***	0.119***
Explained (V) {E+D*CE}:		0.045	0.01	0.027	0.02	0.064***
% unexplained {U/R}:		75.6	94.6	85.1	89	65
% explained (V/R):		24.4	5.4	14.9	11	35

Notes: The references for the different specifications of weights are: 0 (Oaxaca, 1973), 1 (Oaxaca 1973; Blinder, 1973), 0.5 (Reimers, 1983), relative group size (Cotton, 1988), Pooled (Neumark (1988). Standard errors for calculating statistical significance are computed according to Jann (2008). *: statistically significant at 10 percent; **: statistically significant at 5 percent; ***: statistically significant at 1 percent.

Source: World Bank Survey on Gender Norms in Bangladesh (2006).

Table 8. Detailed Decompositions across Two Cohorts of Women: AIDS Awareness

	<i>W = 0</i>		<i>W = 1</i>		<i>W = 0.5</i>		<i>Relative group size</i>		<i>Pooled</i>	
	<i>Expl.</i>	<i>Unexpl.</i>	<i>Expl.</i>	<i>Unexpl.</i>	<i>Expl.</i>	<i>Unexpl.</i>	<i>Expl.</i>	<i>Unexpl.</i>	<i>Expl.</i>	<i>Unexpl.</i>
Own education:										
None	0.060***	0.014	0.036***	0.039	0.048***	0.027	0.047***	0.027	0.089***	-0.014
	[0.014]	[0.010]	[0.012]	[0.027]	[0.010]	[0.018]	[0.010]	[0.019]	[0.011]	[0.019]
Some primary	0.0001	-0.005	-0.001	-0.004	-0.001	-0.004	-0.001	-0.004	-0.001	-0.004
	[0.001]	[0.007]	[0.001]	[0.005]	[0.001]	[0.006]	[0.001]	[0.006]	[0.001]	[0.006]
Primary	0.001	-0.006	-0.002	-0.003	0.0001	-0.005	-0.001	-0.005	0.001	-0.006
	[0.003]	[0.007]	[0.002]	[0.003]	[0.002]	[0.005]	[0.002]	[0.005]	[0.002]	[0.004]
Some secondary	0.026***	-0.010	0.019***	-0.003	0.022***	-0.006	0.022***	-0.006	0.031***	-0.015***
	[0.008]	[0.012]	[0.004]	[0.003]	[0.005]	[0.008]	[0.005]	[0.007]	[0.005]	[0.006]
Secondary plus	0.001	0.004	0.004**	0.002	0.003*	0.003	0.003*	0.003	0.005***	0.0001
	[0.002]	[0.004]	[0.002]	[0.002]	[0.001]	[0.003]	[0.001]	[0.003]	[0.002]	[0.003]
Spousal education:										
None	0.009**	0.007	0.005	0.011	0.007*	0.009	0.007*	0.009	0.008**	0.007
	[0.004]	[0.009]	[0.005]	[0.014]	[0.004]	[0.011]	[0.004]	[0.012]	[0.004]	[0.012]
Some primary	0.002	-0.009	0.0001	-0.007	0.001	-0.008	0.001	-0.008	0.001	-0.008
	[0.002]	[0.006]	[0.001]	[0.005]	[0.001]	[0.005]	[0.001]	[0.005]	[0.001]	[0.005]
Primary	-0.001	0.002	-0.001	0.002	-0.001	0.002	-0.001	0.002	-0.001	0.002
	[0.001]	[0.005]	[0.001]	[0.004]	[0.001]	[0.005]	[0.001]	[0.005]	[0.001]	[0.005]
Some secondary	-0.001	0.013	0.005	0.007	0.002	0.010	0.002	0.010	0.003	0.009
	[0.003]	[0.008]	[0.002]	[0.004]	[0.002]	[0.006]	[0.002]	[0.006]	[0.002]	[0.006]
Secondary plus	0.0001	-0.007	0.0001	-0.007	0.0001	-0.007	0.0001	-0.007	0.0001	-0.007
	[0.001]	[0.006]	[0.0001]	[0.006]	[0.001]	[0.006]	[0.001]	[0.006]	[0.0001]	[0.006]
Information access/processing:										
Listens to radio	0.007***	-0.011*	0.003***	-0.008*	0.005***	-0.009*	0.005***	-0.009*	0.006***	-0.010**
	[0.002]	[0.006]	[0.001]	[0.004]	[0.001]	[0.005]	[0.001]	[0.005]	[0.002]	[0.005]
Do not listen to radio	0.007***	0.026*	0.003***	0.029*	0.005***	0.027*	0.005***	0.028*	0.006***	0.027*
	[0.002]	[0.013]	[0.001]	[0.015]	[0.001]	[0.014]	[0.001]	[0.014]	[0.002]	[0.014]
Religion of household head:										
Islam	-0.002	0.079***	0.0001	0.077***	-0.001	0.078***	-0.001	0.078***	-0.001	0.078***
	[0.001]	[0.025]	[0.001]	[0.024]	[0.001]	[0.024]	[0.001]	[0.024]	[0.001]	[0.024]
Other	-0.002	-0.006**	0.0001	-0.008**	-0.001	-0.007**	-0.001	-0.007**	-0.001	-0.007**

	[0.001]	[0.003]	[0.001]	[0.003]	[0.001]	[0.003]	[0.001]	[0.003]	[0.001]	[0.003]
Poverty / Wealth:										
Lowest asset score decile	-0.002	0.008	-0.001	0.007	-0.001	0.008	-0.001	0.008	-0.001	0.007
	[0.003]	[0.010]	[0.002]	[0.009]	[0.003]	[0.010]	[0.003]	[0.010]	[0.002]	[0.010]
Second-to-lowest asset score decile	-0.008***	0.030***	0.0001	0.022***	-0.004***	0.026***	-0.004***	0.026***	-0.001	0.023***
	[0.003]	[0.009]	[0.002]	[0.007]	[0.001]	[0.008]	[0.001]	[0.008]	[0.001]	[0.008]
Median asset score decile	0.0001	0.001	0.0001	0.001	0.0001	0.001	0.0001	0.001	0.0001	0.001
	[0.0001]	[0.006]	[0.0001]	[0.007]	[0.0001]	[0.007]	[0.0001]	[0.007]	[0.0001]	[0.007]
Second-to-highest asset score decile	-0.001	-0.016**	-0.001	-0.016**	-0.001	-0.016**	-0.001	-0.016**	-0.001	-0.016**
	[0.003]	[0.007]	[0.001]	[0.007]	[0.002]	[0.007]	[0.002]	[0.007]	[0.001]	[0.007]
Highest asset score decile	-0.010**	-0.015***	-0.003**	-0.021***	-0.007***	-0.018***	-0.006***	-0.018***	-0.004*	-0.021***
	[0.004]	[0.006]	[0.002]	[0.008]	[0.003]	[0.007]	[0.002]	[0.007]	[0.002]	[0.007]
Geography:										
Urban	0.001	0.007	0.001	0.007	0.001	0.007	0.001	0.007	0.001	0.007
	[0.001]	[0.009]	[0.002]	[0.009]	[0.002]	[0.009]	[0.002]	[0.009]	[0.002]	[0.009]
Rural	0.001	-0.007	0.001	-0.008	0.001	-0.007	0.001	-0.007	0.001	-0.008
	[0.001]	[0.010]	[0.002]	[0.010]	[0.002]	[0.010]	[0.002]	[0.010]	[0.002]	[0.010]
Dhaka	-0.004	-0.028***	-0.002	-0.031***	-0.003	-0.030***	-0.003	-0.030***	-0.003	-0.029***
	[0.003]	[0.011]	[0.001]	[0.012]	[0.002]	[0.011]	[0.002]	[0.011]	[0.002]	[0.011]
Barisal	0.0001	0.003	0.0001	0.003	0.0001	0.003	0.0001	0.003	0.0001	0.003
	[0.0001]	[0.003]	[0.0001]	[0.003]	[0.0001]	[0.003]	[0.0001]	[0.003]	[0.0001]	[0.003]
Chittagong	0.001	0.009	0.0001	0.010	0.0001	0.009	0.0001	0.009	0.0001	0.009
	[0.001]	[0.006]	[0.001]	[0.007]	[0.001]	[0.007]	[0.001]	[0.007]	[0.001]	[0.007]
Khulna	0.0001	-0.004	0.0001	-0.003	0.0001	-0.004	0.0001	-0.004	0.0001	-0.004
	[0.001]	[0.005]	[0.0001]	[0.004]	[0.0001]	[0.005]	[0.0001]	[0.005]	[0.0001]	[0.005]
Rajshahi	-0.004	-0.001	-0.004	0.0001	-0.004	-0.001	-0.004	-0.001	-0.003	-0.001
	[0.003]	[0.012]	[0.003]	[0.010]	[0.003]	[0.011]	[0.003]	[0.011]	[0.003]	[0.011]
Sylhet	0.0001	0.002	0.0001	0.002	0.0001	0.002	0.0001	0.002	0.0001	0.002
	[0.0001]	[0.003]	[0.0001]	[0.003]	[0.0001]	[0.003]	[0.0001]	[0.003]	[0.0001]	[0.003]
Constant		0.134***		0.134***		0.134***		0.134***		0.134***
		[0.033]		[0.033]		[0.033]		[0.033]		[0.033]
Total	0.084***	0.215***	0.063***	0.235***	0.073***	0.225***	0.073***	0.226***	0.139***	0.159***
	[0.022]	[0.025]	[0.016]	[0.026]	[0.015]	[0.022]	[0.015]	[0.022]	[0.016]	[0.017]

Notes: The calculations take into account the issue of the effect of indicator variables not being individually identified in detailed decompositions (Oaxaca and Ransom, 1999) by applying the deviation contrast transformation to the estimates before conducting the decomposition (Yun 2003) – effectively transforming the coefficients of such variables so that they reflect deviations from the “grand mean” rather than deviations from the reference category as in standard analyses (hence, the transformed coefficients are equivalent to those obtained by using the so-called “effects coding” for the dummy variables). Standard errors are computed according to Jann (2008). *: statistically significant at 10 percent; **: statistically significant at 5 percent; ***: statistically significant at 1 percent.

Source: World Bank Survey on Gender Norms in Bangladesh (2006).

Table 9. Detailed Decompositions across Two Cohorts of Women: HIV/AIDS Can Be Avoided

	<i>W = 0</i>		<i>W = 1</i>		<i>W = 0.5</i>		<i>Relative group size</i>		<i>Pooled</i>	
	<i>Expl.</i>	<i>Unexpl.</i>	<i>Expl.</i>	<i>Unexpl.</i>	<i>Expl.</i>	<i>Unexpl.</i>	<i>Expl.</i>	<i>Unexpl.</i>	<i>Expl.</i>	<i>Unexpl.</i>
Own education:										
None	0.059***	0.031**	0.010	0.080**	0.035***	0.056**	0.028***	0.063**	0.048***	0.043
	[0.016]	[0.014]	[0.015]	[0.037]	[0.010]	[0.026]	[0.010]	[0.029]	[0.010]	[0.027]
Some primary	0.0001	0.008	0.0001	0.008	0.0001	0.008	0.0001	0.008	0.0001	0.008
	[0.002]	[0.008]	[0.001]	[0.008]	[0.001]	[0.008]	[0.001]	[0.008]	[0.001]	[0.008]
Primary	-0.003	0.003	-0.002	0.002	-0.002	0.003	-0.002	0.002	-0.003	0.003
	[0.003]	[0.010]	[0.002]	[0.006]	[0.002]	[0.008]	[0.002]	[0.008]	[0.002]	[0.008]
Some secondary	0.022**	-0.013	0.014**	-0.006	0.018***	-0.009	0.017***	-0.008	0.021***	-0.013
	[0.010]	[0.020]	[0.006]	[0.009]	[0.006]	[0.014]	[0.005]	[0.013]	[0.006]	[0.012]
Secondary plus	0.009*	-0.025**	0.001	-0.017**	0.005*	-0.021**	0.004	-0.020**	0.007**	-0.023***
	[0.005]	[0.010]	[0.002]	[0.007]	[0.003]	[0.008]	[0.002]	[0.008]	[0.003]	[0.008]
Spousal education:										
None	-0.003	-0.029*	0.006	-0.038*	0.001	-0.033*	0.003	-0.034*	0.003	-0.034*
	[0.004]	[0.015]	[0.004]	[0.020]	[0.003]	[0.018]	[0.003]	[0.018]	[0.003]	[0.018]
Some primary	0.0001	-0.008	-0.002	-0.006	-0.001	-0.007	-0.001	-0.007	-0.001	-0.007
	[0.001]	[0.007]	[0.001]	[0.006]	[0.001]	[0.007]	[0.001]	[0.006]	[0.001]	[0.006]
Primary	0.001	-0.010	-0.001	-0.008	0.0001	-0.009	-0.001	-0.009	-0.001	-0.009
	[0.001]	[0.007]	[0.001]	[0.005]	[0.001]	[0.006]	[0.001]	[0.006]	[0.001]	[0.006]
Some secondary	-0.008	0.032**	0.006	0.018**	-0.001	0.025**	0.001	0.023**	0.004	0.020**
	[0.007]	[0.014]	[0.004]	[0.008]	[0.004]	[0.011]	[0.004]	[0.010]	[0.004]	[0.009]
Secondary plus	0.0001	0.025**	-0.010**	0.034**	-0.005	0.030**	-0.006*	0.031**	-0.004	0.028**
	[0.004]	[0.010]	[0.004]	[0.014]	[0.003]	[0.012]	[0.003]	[0.013]	[0.003]	[0.012]
Information access/processing:										
Listens to radio	0.0001	0.012	0.002	0.011	0.001	0.012	0.001	0.012	0.002	0.011
	[0.001]	[0.010]	[0.001]	[0.009]	[0.001]	[0.009]	[0.001]	[0.009]	[0.001]	[0.009]
Do not listen to radio	0.0001	-0.026	0.002	-0.027	0.001	-0.026	0.001	-0.027	0.002	-0.027
	[0.001]	[0.021]	[0.001]	[0.022]	[0.001]	[0.021]	[0.001]	[0.021]	[0.001]	[0.021]
Religion of household head:										
Islam	-0.006*	0.042	-0.003	0.040	-0.004	0.041	-0.004	0.041	-0.004	0.040
	[0.003]	[0.026]	[0.002]	[0.025]	[0.003]	[0.026]	[0.003]	[0.025]	[0.003]	[0.026]
Other	-0.006*	-0.003	-0.003	-0.006	-0.004	-0.004	-0.004	-0.005	-0.004	-0.005

	[0.003]	[0.002]	[0.002]	[0.004]	[0.003]	[0.003]	[0.003]	[0.003]	[0.003]	[0.003]
Poverty / Wealth:										
Lowest asset score decile	-0.001	-0.012	-0.005*	-0.008	-0.003	-0.010	-0.003	-0.010	-0.002	-0.011
	[0.004]	[0.012]	[0.003]	[0.008]	[0.002]	[0.010]	[0.002]	[0.009]	[0.002]	[0.009]
Second-to-lowest asset score decile	-0.007	0.0001	-0.007**	0.0001	-0.007*	0.0001	-0.007*	0.0001	-0.003	-0.004
	[0.007]	[0.013]	[0.003]	[0.006]	[0.004]	[0.009]	[0.004]	[0.008]	[0.003]	[0.008]
Median asset score decile	0.0001	0.015	0.002	0.013	0.001	0.014	0.001	0.014	0.001	0.014
	[0.001]	[0.010]	[0.002]	[0.009]	[0.001]	[0.009]	[0.001]	[0.009]	[0.001]	[0.009]
Second-to-highest asset score decile	-0.001	-0.009	0.001	-0.010	0.0001	-0.010	0.0001	-0.010	0.001	-0.011
	[0.002]	[0.012]	[0.001]	[0.014]	[0.001]	[0.013]	[0.001]	[0.013]	[0.001]	[0.013]
Highest asset score decile	-0.007	0.006	-0.012**	0.012	-0.009**	0.009	-0.010**	0.010	-0.002	0.002
	[0.007]	[0.009]	[0.005]	[0.018]	[0.004]	[0.014]	[0.004]	[0.015]	[0.004]	[0.014]
Geography:										
Urban	-0.002	-0.009	-0.002	-0.010	-0.002	-0.009	-0.002	-0.009	-0.002	-0.009
	[0.002]	[0.014]	[0.002]	[0.015]	[0.002]	[0.014]	[0.002]	[0.014]	[0.002]	[0.014]
Rural	-0.002	0.008	-0.002	0.007	-0.002	0.007	-0.002	0.007	-0.002	0.007
	[0.002]	[0.012]	[0.002]	[0.011]	[0.002]	[0.011]	[0.002]	[0.011]	[0.002]	[0.011]
Dhaka	-0.008*	-0.004	-0.007**	-0.005	-0.007**	-0.005	-0.007**	-0.005	-0.007**	-0.005
	[0.004]	[0.014]	[0.003]	[0.018]	[0.003]	[0.016]	[0.003]	[0.017]	[0.003]	[0.017]
Barisal	0.0001	0.001	0.0001	0.001	0.0001	0.001	0.0001	0.001	0.0001	0.001
	[0.001]	[0.004]	[0.001]	[0.004]	[0.001]	[0.004]	[0.001]	[0.004]	[0.001]	[0.004]
Chittagong	0.0001	0.010	0.0001	0.010	0.0001	0.010	0.0001	0.010	0.0001	0.010
	[0.001]	[0.013]	[0.001]	[0.013]	[0.0001]	[0.013]	[0.0001]	[0.013]	[0.0001]	[0.013]
Khulna	-0.001	0.014**	0.0001	0.013*	0.0001	0.014**	0.0001	0.013**	0.0001	0.013**
	[0.001]	[0.007]	[0.001]	[0.007]	[0.0001]	[0.007]	[0.0001]	[0.007]	[0.0001]	[0.007]
Rajshahi	0.009	-0.002	0.008*	-0.001	0.008*	-0.002	0.008*	-0.002	0.009**	-0.003
	[0.007]	[0.016]	[0.004]	[0.009]	[0.005]	[0.013]	[0.004]	[0.012]	[0.005]	[0.012]
Sylhet	0.0001	-0.010*	0.003	-0.012*	0.001	-0.011*	0.002	-0.011*	0.002	-0.011*
	[0.001]	[0.006]	[0.002]	[0.007]	[0.001]	[0.006]	[0.001]	[0.006]	[0.001]	[0.006]
Constant		0.090**		0.090**		0.090**		0.090**		0.090**
		[0.040]		[0.040]		[0.040]		[0.040]		[0.040]
Total	0.048	0.138***	-0.001	0.186***	0.024	0.162***	0.017	0.169***	0.066	0.120***
	[0.030]	[0.037]	[0.026]	[0.037]	[0.021]	[0.031]	[0.021]	[0.032]	[0.019]	[0.023]

Notes: The calculations take into account the issue of the effect of indicator variables not being individually identified in detailed decompositions (Oaxaca and Ransom, 1999) by applying the deviation contrast transformation to the estimates before conducting the decomposition (Yun 2003) – effectively transforming the coefficients of such variables so that they reflect deviations from the “grand mean” rather than deviations from the reference category as in standard analyses (hence, the transformed coefficients are equivalent to those obtained by using the so-called “effects coding” for the dummy variables). Standard errors are computed according to Jann (2008). *: statistically significant at 10 percent; **: statistically significant at 5 percent; ***: statistically significant at 1 percent.

Source: World Bank Survey on Gender Norms in Bangladesh (2006).

Table 10. Detailed Decompositions across Two Cohorts of Women: Using Condoms Help Avoid Getting HIV/AIDS

	<i>W = 0</i>		<i>W = 1</i>		<i>W = 0.5</i>		<i>Relative group size</i>		<i>Pooled</i>	
	<i>Expl.</i>	<i>Unexpl.</i>	<i>Expl.</i>	<i>Unexpl.</i>	<i>Expl.</i>	<i>Unexpl.</i>	<i>Expl.</i>	<i>Unexpl.</i>	<i>Expl.</i>	<i>Unexpl.</i>
Own education:										
None	0.019	0.017	-0.006	0.042	0.007	0.030	0.002	0.035	0.016*	0.020
	[0.016]	[0.016]	[0.015]	[0.040]	[0.009]	[0.028]	[0.010]	[0.033]	[0.010]	[0.031]
Some primary	0.0001	0.006	0.0001	0.007	0.0001	0.007	0.0001	0.007	0.0001	0.007
	[0.0001]	[0.010]	[0.001]	[0.011]	[0.001]	[0.010]	[0.001]	[0.010]	[0.001]	[0.010]
Primary	0.004	-0.017	-0.001	-0.012	0.001	-0.015	0.0001	-0.014	0.0001	-0.013
	[0.004]	[0.011]	[0.002]	[0.008]	[0.002]	[0.009]	[0.002]	[0.009]	[0.002]	[0.008]
Some secondary	0.006	-0.031	-0.009	-0.016	-0.002	-0.024	-0.005	-0.021	0.0001	-0.026
	[0.012]	[0.028]	[0.007]	[0.014]	[0.007]	[0.021]	[0.006]	[0.018]	[0.006]	[0.017]
Secondary plus	-0.001	0.008	0.0001	0.007	0.0001	0.008	0.0001	0.007	0.0001	0.007
	[0.002]	[0.018]	[0.001]	[0.016]	[0.001]	[0.017]	[0.001]	[0.017]	[0.001]	[0.017]
Spousal education:										
None	0.001	-0.021	0.010*	-0.030	0.005	-0.026	0.007*	-0.028	0.008	-0.029
	[0.007]	[0.020]	[0.006]	[0.029]	[0.004]	[0.025]	[0.004]	[0.026]	[0.005]	[0.026]
Some primary	-0.005	0.019**	0.0001	0.014**	-0.003	0.017**	-0.002	0.016**	-0.002	0.016**
	[0.004]	[0.009]	[0.001]	[0.007]	[0.002]	[0.008]	[0.002]	[0.007]	[0.002]	[0.007]
Primary	0.001	-0.003	0.0001	-0.003	0.001	-0.003	0.0001	-0.003	0.0001	-0.003
	[0.002]	[0.008]	[0.001]	[0.007]	[0.001]	[0.008]	[0.001]	[0.007]	[0.001]	[0.007]
Some secondary	-0.002	0.010	0.003	0.004	0.001	0.007	0.002	0.006	0.004	0.004
	[0.010]	[0.019]	[0.004]	[0.009]	[0.005]	[0.014]	[0.004]	[0.012]	[0.004]	[0.011]
Secondary plus	-0.013*	-0.013	-0.008	-0.019	-0.010*	-0.016	-0.009	-0.017	-0.010*	-0.017
	[0.007]	[0.018]	[0.007]	[0.026]	[0.006]	[0.022]	[0.006]	[0.024]	[0.005]	[0.023]
Information access/processing:										
Listens to radio	0.001	-0.012	-0.002	-0.010	-0.001	-0.011	-0.001	-0.011	0.0001	-0.011
	[0.002]	[0.012]	[0.002]	[0.010]	[0.002]	[0.011]	[0.002]	[0.011]	[0.002]	[0.011]
Do not listen to radio	0.001	0.022	-0.002	0.024	-0.001	0.023	-0.001	0.023	0.0001	0.023
	[0.002]	[0.021]	[0.002]	[0.024]	[0.002]	[0.022]	[0.002]	[0.023]	[0.002]	[0.023]
Religion of household head:										
Islam	-0.001	0.024	0.001	0.022	0.0001	0.023	0.0001	0.023	0.001	0.022
	[0.003]	[0.038]	[0.003]	[0.035]	[0.002]	[0.036]	[0.003]	[0.036]	[0.003]	[0.036]
Other	-0.001	-0.002	0.001	-0.004	0.0001	-0.003	0.0001	-0.004	0.001	-0.004

	[0.003]	[0.003]	[0.003]	[0.007]	[0.002]	[0.005]	[0.003]	[0.006]	[0.003]	[0.006]
Poverty / Wealth:										
Lowest asset score decile	0.0001	-0.002	-0.001	-0.001	-0.001	-0.002	-0.001	-0.001	0.001	-0.003
	[0.005]	[0.015]	[0.002]	[0.010]	[0.003]	[0.013]	[0.002]	[0.012]	[0.002]	[0.011]
Second-to-lowest asset score decile	-0.007	0.007	-0.003	0.002	-0.005	0.004	-0.004	0.004	0.0001	-0.001
	[0.010]	[0.017]	[0.005]	[0.006]	[0.006]	[0.011]	[0.005]	[0.009]	[0.005]	[0.007]
Median asset score decile	-0.003	-0.005	-0.004	-0.004	-0.004	-0.005	-0.004	-0.004	-0.004	-0.004
	[0.005]	[0.016]	[0.003]	[0.011]	[0.003]	[0.014]	[0.003]	[0.013]	[0.003]	[0.012]
Second-to-highest asset score decile	-0.004	-0.014	-0.002	-0.016	-0.003	-0.015	-0.002	-0.015	-0.002	-0.016
	[0.004]	[0.016]	[0.002]	[0.018]	[0.003]	[0.017]	[0.003]	[0.017]	[0.002]	[0.017]
Highest asset score decile	0.001	0.014	-0.011	0.026	-0.005	0.020	-0.007	0.023	0.003	0.013
	[0.013]	[0.016]	[0.009]	[0.030]	[0.008]	[0.023]	[0.008]	[0.026]	[0.007]	[0.025]
Geography:										
Urban	0.002	0.001	0.002	0.001	0.002	0.001	0.002	0.001	0.001	0.002
	[0.003]	[0.018]	[0.002]	[0.020]	[0.002]	[0.019]	[0.002]	[0.020]	[0.002]	[0.020]
Rural	0.002	-0.001	0.002	-0.001	0.002	-0.001	0.002	-0.001	0.001	0.0001
	[0.003]	[0.013]	[0.002]	[0.011]	[0.002]	[0.012]	[0.002]	[0.012]	[0.002]	[0.012]
Dhaka	0.012*	0.045**	-0.001	0.058**	0.005	0.052**	0.003	0.054**	0.004	0.053**
	[0.007]	[0.022]	[0.005]	[0.029]	[0.005]	[0.025]	[0.004]	[0.027]	[0.005]	[0.027]
Barisal	0.003	0.005	0.002	0.005	0.002	0.005	0.002	0.005	0.002	0.005
	[0.007]	[0.004]	[0.005]	[0.005]	[0.006]	[0.005]	[0.006]	[0.005]	[0.006]	[0.005]
Chittagong	0.001	-0.017	0.0001	-0.016	0.001	-0.016	0.001	-0.016	0.001	-0.016
	[0.008]	[0.019]	[0.004]	[0.019]	[0.006]	[0.019]	[0.005]	[0.019]	[0.006]	[0.019]
Khulna	0.006	-0.016	0.002	-0.013	0.004	-0.015	0.003	-0.014	0.003	-0.014
	[0.005]	[0.013]	[0.002]	[0.010]	[0.003]	[0.011]	[0.003]	[0.011]	[0.003]	[0.011]
Rajshahi	0.020*	0.025	0.031***	0.014	0.025***	0.019	0.027***	0.017	0.029***	0.016
	[0.010]	[0.021]	[0.010]	[0.012]	[0.009]	[0.016]	[0.009]	[0.015]	[0.010]	[0.014]
Sylhet	0.004	-0.004	0.007	-0.006	0.005	-0.005	0.006	-0.005	0.006	-0.005
	[0.004]	[0.004]	[0.005]	[0.006]	[0.004]	[0.005]	[0.004]	[0.005]	[0.004]	[0.005]
Constant		0.096**		0.096**		0.096**		0.096**		0.096**
		[0.047]		[0.047]		[0.047]		[0.047]		[0.047]
Total	0.045	0.139***	0.010	0.174***	0.027	0.156***	0.020	0.163***	0.064***	0.119***
	[0.036]	[0.050]	[0.032]	[0.051]	[0.025]	[0.044]	[0.026]	[0.045]	[0.023]	[0.036]

Notes: The calculations take into account the issue of the effect of indicator variables not being individually identified in detailed decompositions (Oaxaca and Ransom, 1999) by applying the deviation contrast transformation to the estimates before conducting the decomposition (Yun 2003) – effectively transforming the coefficients of such variables so that they reflect deviations from the “grand mean” rather than deviations from the reference category as in standard analyses (hence, the transformed coefficients are equivalent to those obtained by using the so-called “effects coding” for the dummy variables). Standard errors are computed according to Jann (2008). *: statistically significant at 10 percent; **: statistically significant at 5 percent; ***: statistically significant at 1 percent.

Source: World Bank Survey on Gender Norms in Bangladesh (2006).