RISKY SEXUAL BEHAVIORS IN YOUNG PEOPLE IN ASIA AND AFRICA

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Theoretical focus

Sexual transmission is presumed to account for the vast majority of HIV/AIDS infections in the world. Eighty-four to 100 percent of all AIDS cases reported in sub-Saharan African countries during the period 1980-1997 were presumed to have been acquired through sexual transmission, while the percentages in Asian countries ranged from 77 to 97 percent Exceptions are China, Iran, Malaysia and Viet Nam, where transmission through intra-venous drug users accounted for over half of all AIDS cases (UNAIDS 1998). Furthermore, because many countries have taken successful steps to improve blood safety, the relative share of sexual transmission has now correspondingly increased.

As a result of the assumed dominance of sexual transmission, HIV prevention activities have focused predominantly on the prevention of sexual transmission. These activities have largely been based on behavior change communication (BCC) strategies, which have targeted the three key behaviors of abstinence, faithfulness and condom use.

There are several reasons why the theoretical focus of this paper is on the sexual behaviors of young people. First, there has been a drop in the age at sexual maturity over time. Second, there has been simultaneously, a universal rise in the age at marriage. The result of this growing age gap between puberty and marriage has been an increase in the number of sexually active, unmarried young people.

It is important, additionally, to examine sex differences in sexual behaviors. Women, and especially young women, whose reproductive tracts have not yet fully matured, are biologically more vulnerable than young men to a host of reproductive health problems. It has been estimated that women between the ages of 25 and 49 have a slightly higher level of vulnerability than men. Between the ages of 20 and 24, however, they are about three times more vulnerable, and between the ages of 15 and 19 they are about six times more vulnerable than their male contemporaries. Furthermore, the need to focus on young women is borne out by data on estimated HIV prevalence levels in young men and young women suggesting that, in sub-Saharan African countries, for every young man infected, there are on average 2 to 3 young women infected (UNAIDS 2000).

This paper, which focuses on the risk behaviors that facilitate the sexual transmission of HIV, is an exploratory comparative analysis of sex differences in the sexual behaviors that increase the susceptibility of young people to HIV infection. It does not take into account non-sexual behaviors such as needle sharing among IDUs or transfusions with infected blood. Nor does it consider differences in the biological and epidemiological factors that influence trends and modes of HIV transmission, such as rates of sexually transmitted infections (STIs) or type of virus, or variations in the reach and effectiveness of established health systems.

Data

In a variety of countries (e.g. Thailand, Cambodia, Uganda), three key behaviors have been influential in slowing down the sexual spread of HIV: delaying sexual debut, avoiding non-regular sexual partnerships and using condoms during sex with non-regular partners. Country-level indicators of these three behaviors have been collected in national surveys and are available for a variety of sub-Saharan African and Asian countries, separately for young men and young women.

Age at sexual debut has been commonly measured at the national level in terms of the proportion of survey respondents aged 15 to 19 who reported having sex before the age of 15. The frequency of non-regular sexual partnerships has been measured as the proportion of sexually active respondents who reported having sex with a non-marital, non-cohabiting partner in the 12 months preceding the survey. And condom use has been measured as the proportion of respondents who reported using a condom the last time they had sex with a non-regular partner.

The differences in sexual behaviors illustrated in this paper are based on survey data collected in Demographic and Health Surveys and behavioral surveillance surveys for various countries of Asia and sub-Saharan Africa (UNAIDS 2004).

Research methods

National-level indicators purporting to measure the three key sexual behaviors described above among young male and female populations in selected countries of sub-Saharan Africa and Asia are presented graphically. As two of the indicators (sex with non-regular partners and condom use) are based on conditional survey questions, they should only be considered as being indicative of a propensity to the behaviors of interest at the national level, rather than as direct measures of such behaviors. These indicators are simply a device for making comparisons between sub-populations and countries.

The first part of the paper presents comparisons between countries and sub-groups in a unidimensional fashion, i.e. with only one indicator being considered at any one time. However, this method provides only a partial picture of behavioral risk.

Hence, the second part of the paper presents two composite indices of risk behavior that allow several types of risk factors to be taken into account simultaneously. The first index, the Behavioral Risk Index (or BRI) is obtained by multiplying the proportion of respondents who reported non-regular sexual partnerships by the proportion of respondents who did not use a condom during last higher-risk sex. The second index, the Combined Risk Index (or CRI), additionally introduces a measure of the likelihood that a partner chosen at random in the partner pool is HIV-positive. It is computed by multiplying the values of the BRI by the estimated proportion of HIV positive adults in the country (adult HIV prevalence rate). It should be noted that the index values have no meaning in and of themselves but are only a device for making comparisons. For selected countries the values of both unidimensional indicators and composite indices are calculated separately for young men and young women aged 15 to 24.

Findings

1. Unidimensional indicators

a) Age at first sex

Survey data collected among youth aged 15 to 19 reveal major differences between the populations of Asian and sub-Saharan African countries. On the whole, the prevalence of very early sexual debut (under 15 years of age) is markedly higher in African countries. Up to 43 percent of the young men surveyed in African countries had sex before age 15, versus less than 20 percent in Asian countries (Fig.1). Among young women, the prevalence of very early ages at first sex was also markedly higher in African countries (up to 32 percent) than in Asian countries (mostly under 9 percent). Such differences suggest higher risk levels, especially for women. Some sex differences are visible within Africa itself, however. For instance, age at first sex was consistently lower for women than for men in West African and Sahelian countries, whereas it was lower for men than for women in countries south of the Equator.

These results are corroborated by data on median age at first sex collected among young people aged 20-24. The median values are markedly higher in Asian countries than in African countries, by approximately 2 years for men and 3 years for women (UNAIDS 2002).

b) Non-regular partnerships

Non-regular sexual partnerships among sexually active young people of both sexes are reported more commonly in African countries (Fig. 2). The distribution of 22 countries shows Asian countries clustered towards the right-hand side of the graph, i.e. at lower levels of non-regular partnerships.

The percentage of sexually active young men reporting such partnerships was above 50 percent in all countries but three. But only in 4 countries was the percentage of sexually active young women reporting non-regular partnerships above 50 percent, highlighting that young women are far less likely to engage in this type of risk behavior.

A comparison of the data for young people with data for adults aged 15 to 49 shows that, on the whole, non-regular sexual partnerships are far more common among young people than among adults as a whole. This difference holds for women as well as for men.

c) Condom use

While geographic differences in condom use seem less marked than differences in the previous two risk factors, condom use among young people appears to be somewhat higher in the three Asian countries than the average for African countries

(Fig. 3). Asian countries tend to be located towards the left hand-side of both graphs, indicating more widespread condom use.

Quite alarmingly, the youth data display noticeable sex differences in reported condom use. In all of the 22 countries considered, women are less likely than men to report condom use at last high-risk sex. And in 12 of the countries considered, reported condom use among young women is less than half of what it is among young men.

2. Multidimensional indices

a) Behavioral Risk Index (BRI)

When African and Asian countries are ranked in descending order according to the values of the Behavioral Risk Index, the three Asian countries consistently fall in the lower half of the distribution both for young men and young women (Fig. 4). The lower levels of behavioral risk in these countries are quite striking.

In virtually all countries, young women have markedly lower levels of behavioral risk than men (with the exception of Namibia). In half the countries considered, behavioral risk levels were .40 or above for young men and .18 or above for young women. In general, it would appear that the greater risk stemming from the less frequent use of condoms by young women is to a large extent mitigated by their less frequent involvement in non-regular partnerships.

It is worth noting that, on average, the levels of behavioral risk of young people are markedly higher than those of adults (as indicated by the values of the BRI for adults, computed in the same way as they were for young people). In half the countries considered, behavioral risk levels were .15 or above for adult men and .10 or above for adult women.

b) Combined Risk Index (CRI)

Finally, differences among sub-groups and countries are examined according to the values of the Combined Risk Index, which additionally takes into account the likelihood that a partner taken at random in the pool of potential partners is HIV positive (all young people combined, only). The differences between African and Asian countries become more striking still, as the generally higher HIV prevalence rates of African countries compound generally higher levels of behavioral risk (Table 1).

Conclusion and recommendations

Clearly, the future evolution of HIV epidemics in Asian and African countries will depend not solely on current prevalence rates and on the sexual risk behaviors of their populations, but also on the combination of a multiplicity of interrelated epidemiological, social and policy factors (such as dominant modes of spread, infectivity of virus types, STI prevalence rates,

reach and effectiveness of the health system, government-supported prevention and control programmes, etc.)

To a significant extent, however, the comparatively greater vulnerability of the youth of sub-Saharan African countries relative to those of Asian countries appears to stem from the marked behavioral differences illustrated above, which compound differences in epidemiological factors.

The implications of these findings highlight the importance of strengthening the monitoring of trends in risk factors through behavioral surveillance and of bringing about effective changes in behavior through targeted BCC strategies. More specifically:

a)The differences between the behaviors of young and adult sub-populations strongly indicate that young people have substantially higher levels of risk and should be the primary focus of BCC campaigns. These differences also suggest that it is critical for BCC strategies not to assume similar risk factors in adults and in young people and that they need to be specifically tailored not only to the sub-populations targeted but also to the respective importance of various sub-components of risk.

b) Likewise, BCC strategies should not assume similar risk factors in male and female sub-populations. In particular, the contrast between the consistently lower values of the BRI for young women and their higher HIV prevalence levels (at least in African countries) points to the need to devise valid indicators to assess young women's infection risk within regular partnerships. An added risk factor for women, which is not easily measured in standard behavioral surveys, stems from sexual relations with significantly older partners, within or outside marriage. Globally, the rapid feminization of HIV/AIDS makes it urgent to address the much greater societal vulnerability of young women on a broad front, through the specific implementation of women empowerment strategies towards sexual negotiation, through the improved availability of barrier methods and through policy changes in marriage laws.

c) The marked inter-country differences in the BRI raise the question of appropriate BCC interventions designed to reflect whether higher-risk behaviors go against the grain of accepted cultural practices or whether they are deeply ingrained in these practices.

d) Finally, the consistent and striking differences between African and Asian countries indicated by the values of the unidimensional indicators and of the composite indices support the contention that sexual transmission of HIV in Asian countries is unlikely to follow sub-Saharan African epidemic paths and that the more alarmist African-type scenarios on the sexual spread of HIV/AIDS are unlikely to be realized in the Asia region.

References

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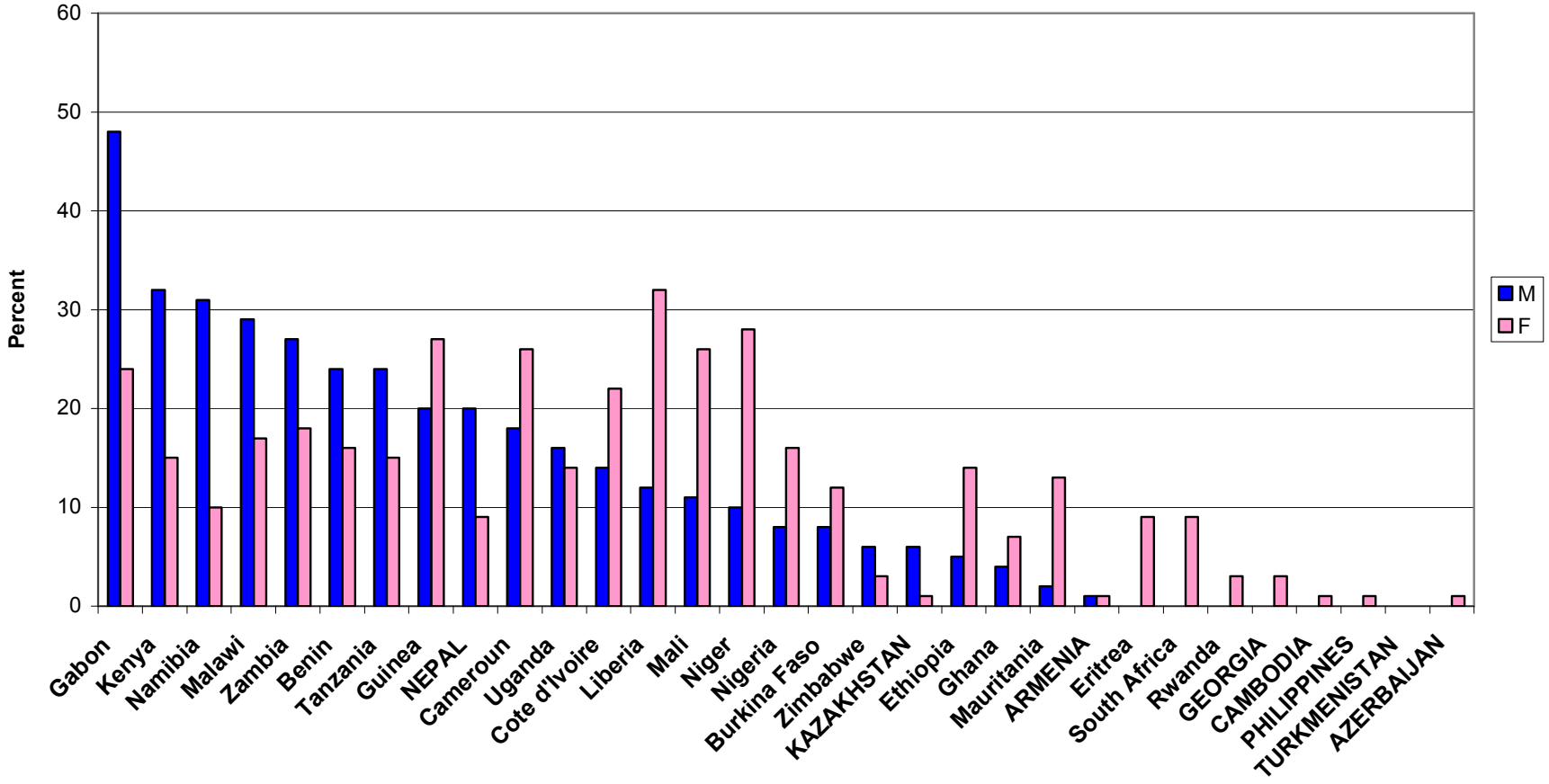
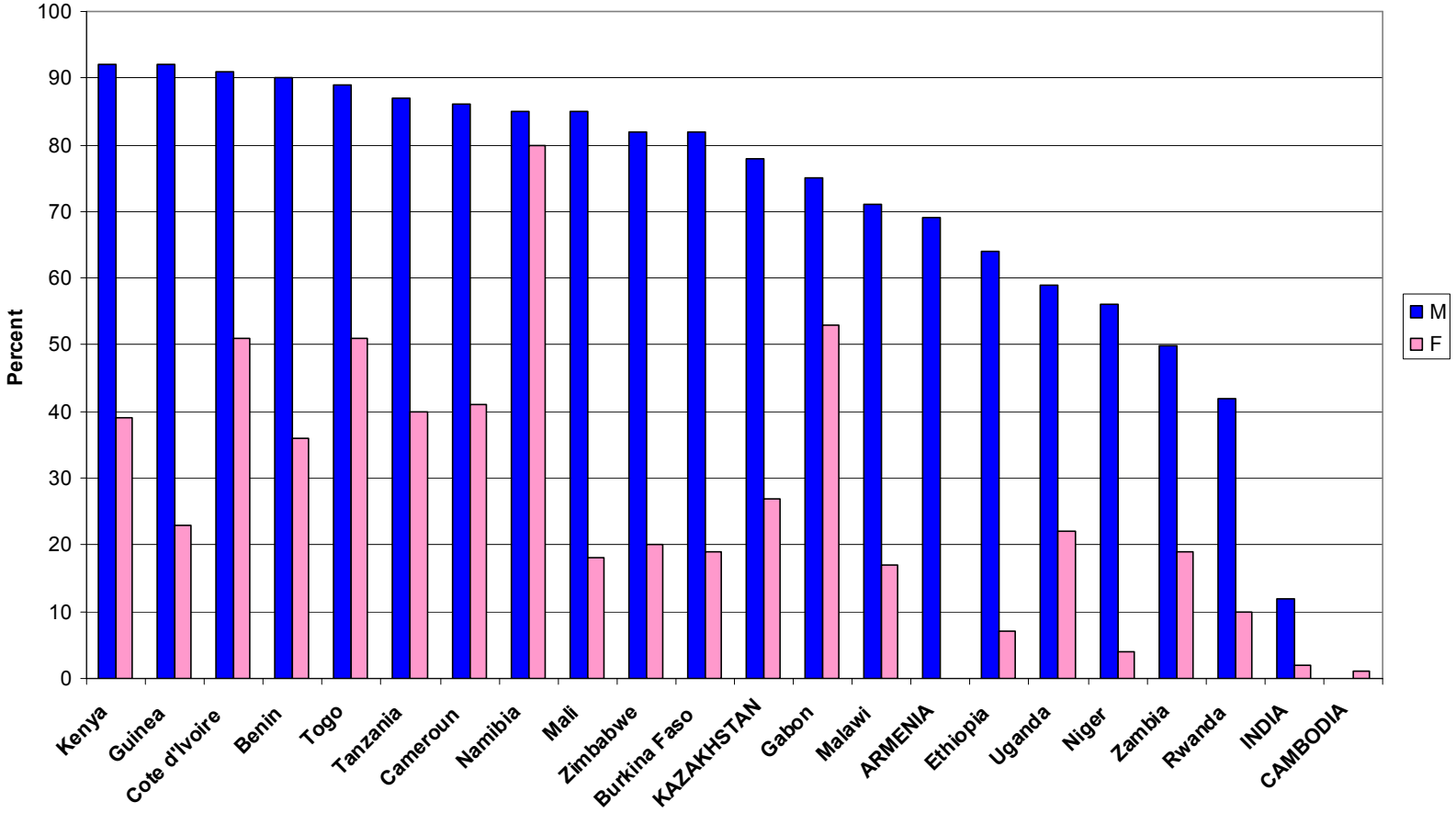
UNAIDS, 2002. Report on the global HIV/AIDS epidemic. Joint United Nations Programme on HIV/AIDS.

UNAIDS, 2004. Report on the global HIV/AIDS epidemic. Joint United Nations Programme on HIV/AIDS.

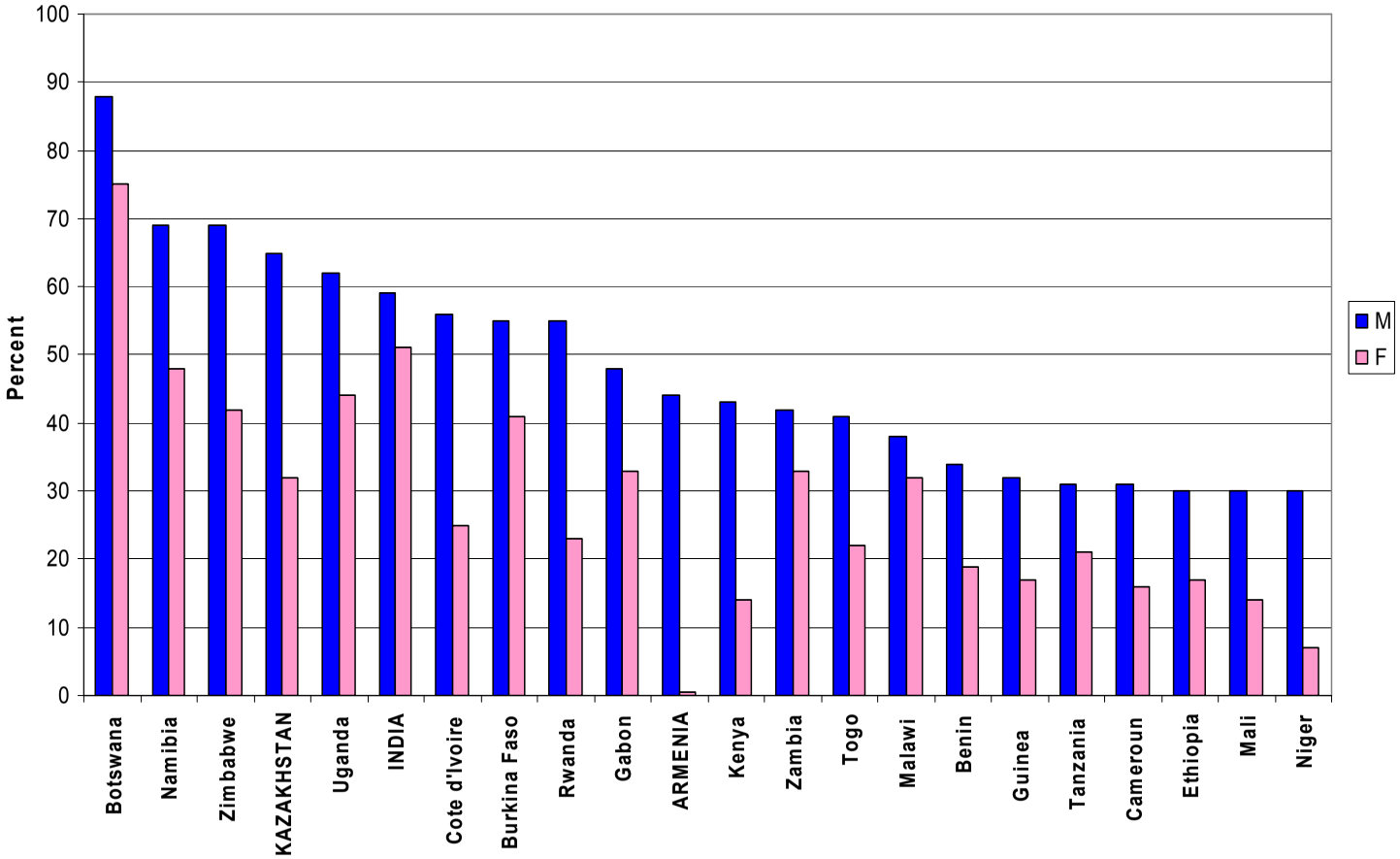
Percentage of Youth (15-19) Who Had Sex before Age 15
(Source: UNAIDS, 2004)



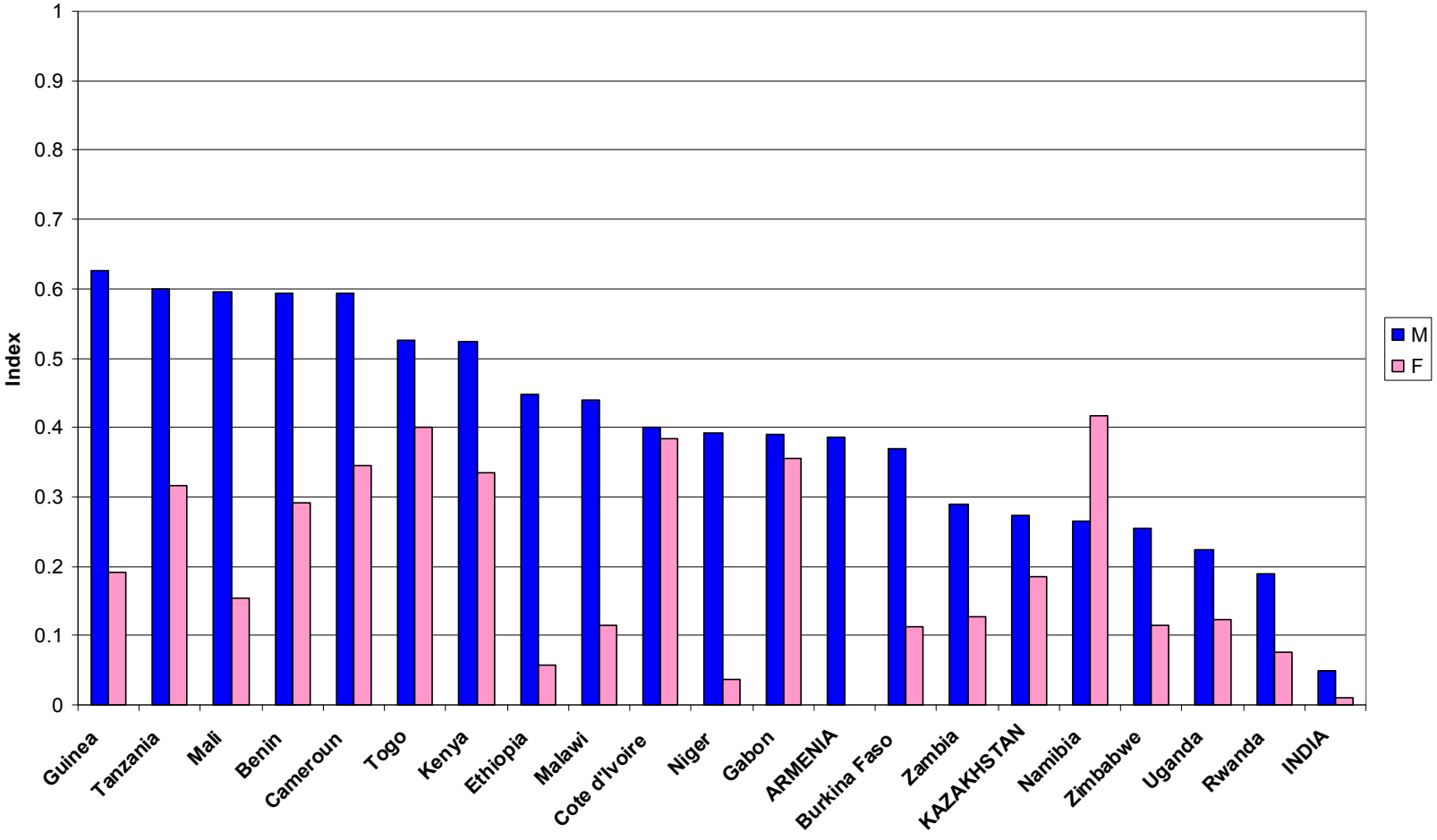
Percentage of Sexually Active Youth (15-24) Reporting non-Regular Partnerships in the Last Year
(Source: UNAIDS, 2004)



Percentage of Youth (15-24) Reporting Condom Use at Last Higher-Risk Sex
(Source: UNAIDS, 2004)



BRI Youth - 2004
(Source: Author's computations)



TYPOLOGY OF 21 COUNTRIES BY VALUES OF YOUTH CRI

BRI above median, APR below median

- Malawi (,031)
- Togo (.011)
- Guinea (.010)
- Ethiopia (.010)
- Mali (.006)
- Benin (.0055)
- Niger (.0025)

Both BRI and APR above median

- Tanzania (.0265)
- Cameroun (.0205)
- Kenya (.0175)
- Cote d'Ivoire (.014)

Both BRI and APR below median

- Burkina Faso (.0075)
- Uganda (.0045)
- Armenia (.0005)
- India (.0005)
- Kazakhstan (.0005)

BRI below median, APR above median

- Zimbabwe (.031)
- Namibia (.028)
- Zambia (.024)
- Gabon (.016)
- Rwanda (.005)

Table 1