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# Male migration and risky sexual behavior in rural India: is the place of origin critical for HIV prevention programs?

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**Background:** Recent studies of male migrants in India indicate that those who are infected with HIV are spreading the epidemic from high risk populations in high prevalence areas to populations in low prevalence areas. In this context, migrant men are believed to initiate and have risky sexual behaviors in places of destination and not in places of origin. The paucity of information on men's risky sexual behaviors in places of origin limits the decision to initiate HIV prevention interventions among populations in high out-migration areas in India.

**Methods:** A cross-sectional behavioral survey was conducted among non-migrants, returned migrants (with a history of migration), and active (current) migrants in rural areas across two districts with high levels of male out-migration: Prakasam district in Andhra Pradesh and Azamgarh district in Uttar Pradesh. Surveys assessed participant demographics, migration status, migration history, and sexual behavior along the migration routes, place of initiation of sex. District-stratified regression models were used to understand the associations between migration and risky sexual behaviors (number of partners, condom use at last sex) and descriptive analyses of migrants' place of sexual initiation and continuation along migration routes.

**Results:** The average age at migration of our study sample was 19 years. Adjusted regression analyses revealed that active migrants were more likely to engage in sex with sex workers in the past 12 months (Prakasam: 15 percent vs. 8 percent; adjusted odds ratio (aOR)=2.1, 95% CI 1.2-3.4; Azamgarh: 19 percent vs. 7 percent; aOR=4.0, 95% CI 2.4-6.6) as well as have multiple (3+) sex partners (Prakasam: 18 percent vs. 9 percent; aOR=2.0, 95% CI 1.3-3.2; Azamgarh: 28 percent vs. 21 percent; aOR=1.9, 95% CI 1.2-3.0) than non-migrants. Contrary to popular belief, a high proportion of active and returned migrants (almost 75 percent of those who had sex) initiated sex at the place of origin before migrating, which is equivalent to the proportion of non-migrants who engaged in sex with sex workers as well as with casual unpaid partners. Moreover, non-migrants were more likely than migrants to engage in unprotected sex.

**Conclusion:**

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**1** Map showing the approximate geographic locations of study sites within each state in India and the major routes of male out-migration.

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2011 census, the population of India is 121.2 crore, which is an increase of 17.5% over the population of 102.8 crore in 2001. The population growth rate is 17.5%. The population of India is increasing at an annual rate of 1.4%.

**Participants**  
 The study was conducted in 2011. The participants were recruited from various states in India. The study was conducted in 2011.

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### Sampling design

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### Ethical considerations

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### Assessment

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### Measures

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| ts/Non-                   | Active migrants/Non-migrants |
|---------------------------|------------------------------|
| AOR <sup>1</sup> (95% CI) |                              |
|                           | 1.43 (1.06-1.96)**           |
|                           | 0.60 (0.22 - 1.64)           |
|                           | 4.00 (2.43 - 6.59)*          |
|                           | 1.41 (0.98 - 2.02)           |
|                           | 4.45 (2.47 - 8.02)*          |
|                           | 1.92 (1.23 - 3.01)*          |
|                           | 1.53 (0.55 - 4.23)           |
|                           | 4.00 (1.62 - 9.93)*          |
|                           | 3.05 (1.59-5.87)             |







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1. The first part of the book is a  
introduction to the subject of  
the book. It is written in a  
clear and concise style.

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