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2005-06 National Family Health Survey (NFHS-3)

HIV Knowledge and Prevalence

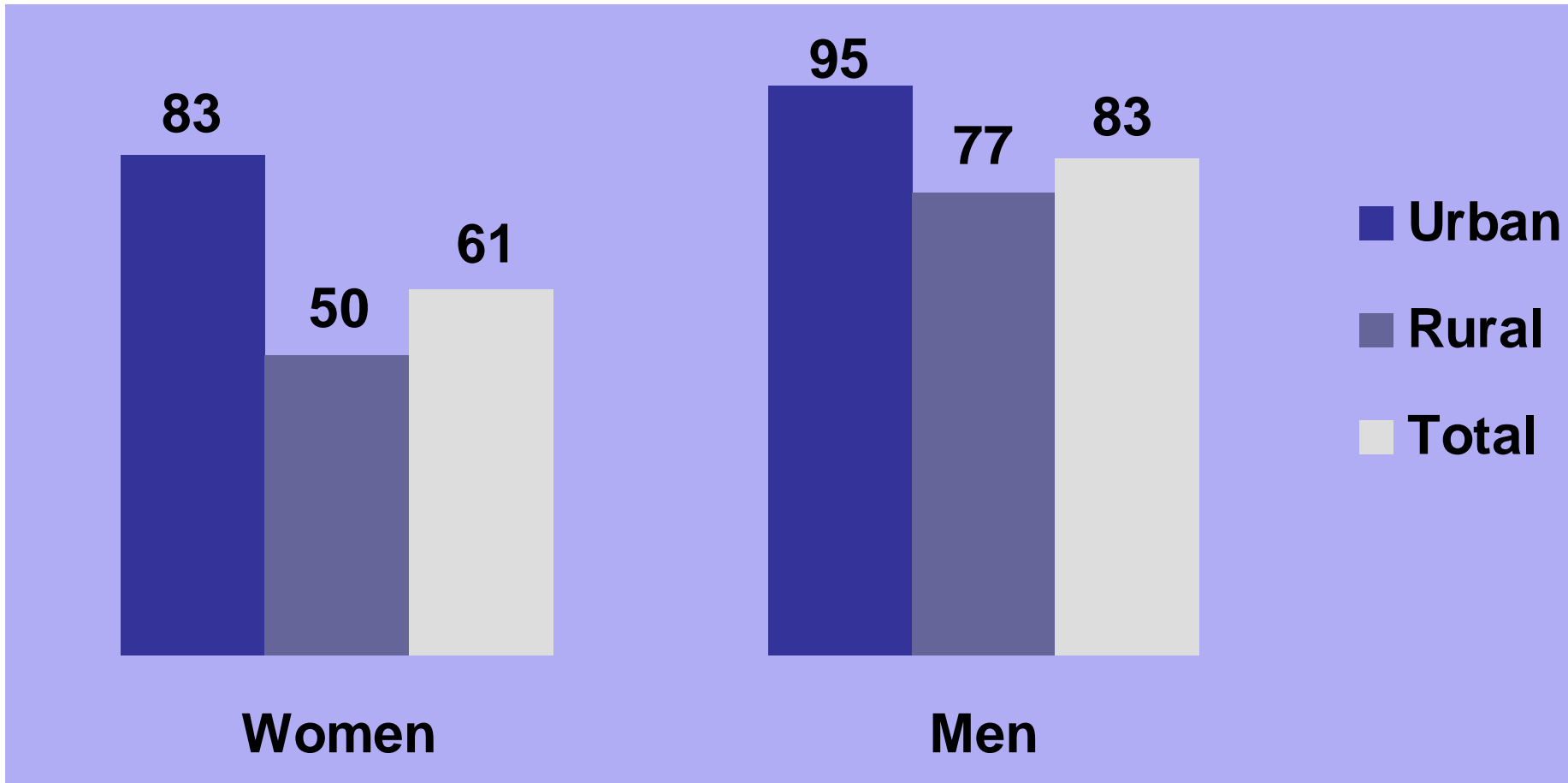
Contents

HIV/AIDS Knowledge

- Family Life Education
- The *How* of HIV Testing
- Coverage of HIV Testing in NFHS-3
- HIV prevalence

Knowledge of AIDS by Residence

Percent of women and men age 15-49 who have heard of AIDS



What is Comprehensive Knowledge?

Persons have comprehensive knowledge if they know:

✓ **That using a condom and having just one uninfected partner limits the risk of getting AIDS**

AND

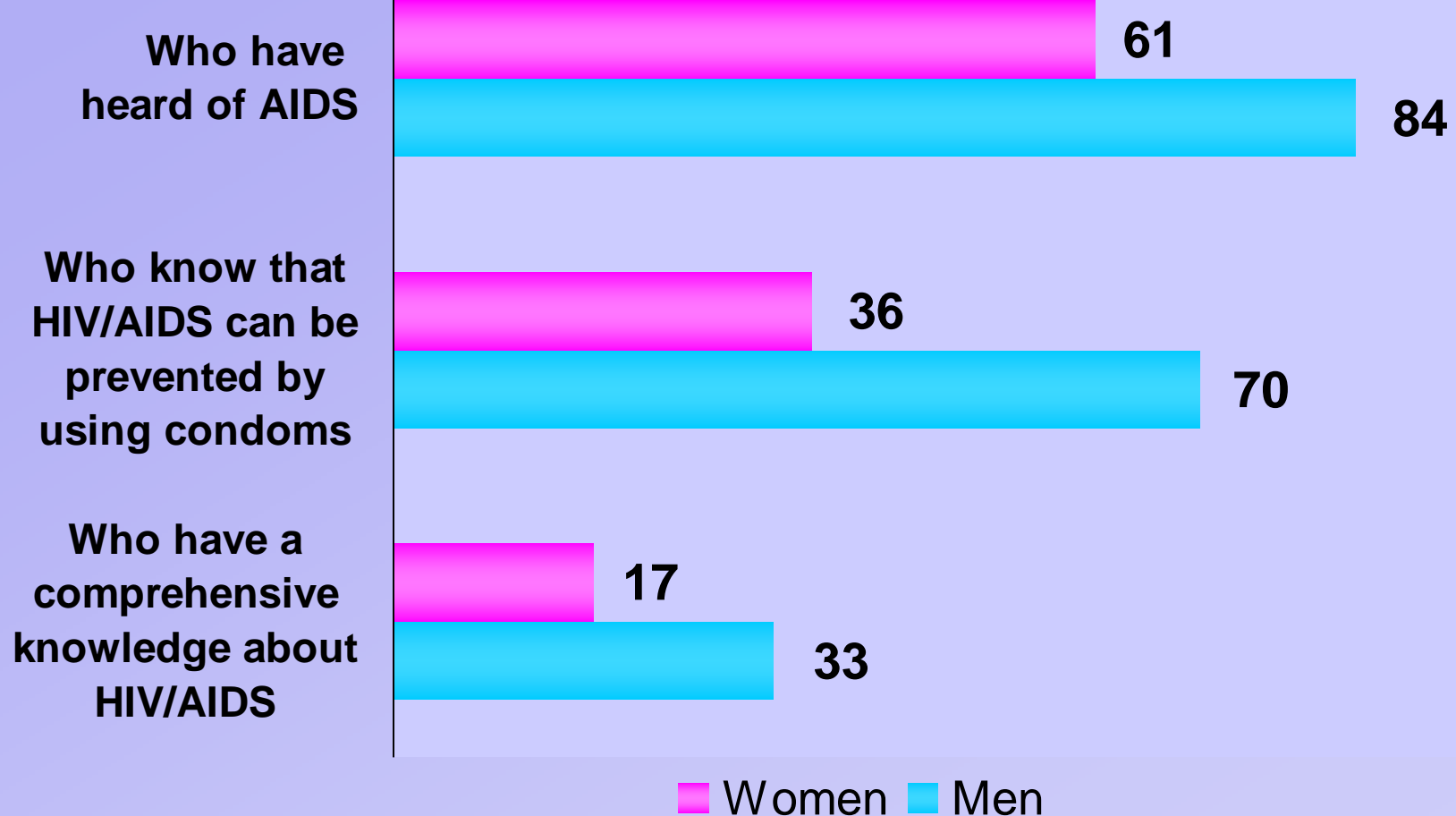
✓ **That a healthy looking person can have AIDS**

AND

✓ **Reject the two most common misconceptions about AIDS transmission (transmission by mosquito bites and by sharing food)**

HIV/AIDS Awareness Indicators

Percent of women and men
age 15-49:



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Percentage who agree that family-life related topics should be taught to children in school

Topic to be taught in school	% of women who agree		% of men who agree	
	Girls	Boys	Girls	Boys
Pubertal changes in boys' bodies	54	69	68	82
Pubertal changes in girls' bodies	76	77	41	64
Sex and sexual behavior	46	62	43	62
Contraception	49	65	42	64
HIV/AIDS	63	81	63	82
Condom use to prevent STDs	44	68	43	70

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Goals for HIV Prevalence Estimates

Using international guidelines for the ethical and safe collection of blood, estimate HIV prevalence:

- ✓ For India in the general population, by sex, age, urban-rural residence, and groups of states
- ✓ For each of NACO's six high prevalence states, Andhra Pradesh, Karnataka, Maharashtra, Manipur, Nagaland, and Tamil Nadu, by sex
- ✓ For a low prevalence state, Uttar Pradesh, by sex

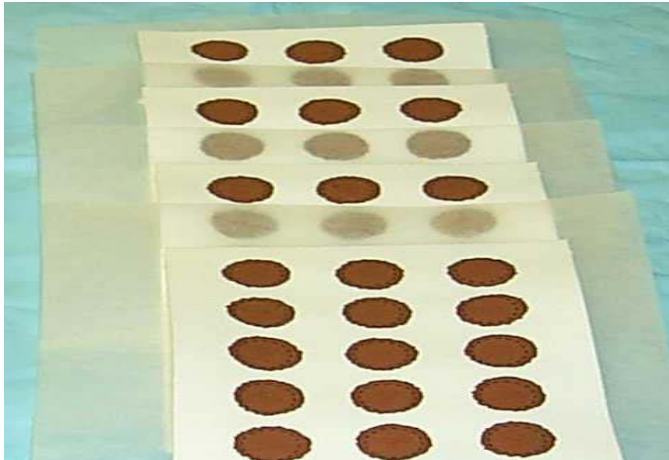
Estimates to be based on blood collected from a representative sample of women age 15-49 and men age 15-54

Collection of Samples in the Field for HIV Testing

- Blood spots from a finger prick were collected on a special filter paper card
- No names or personal identifiers were placed on the filter paper sample
- Self-adhesive barcode labels bearing the same numbers were affixed to the filter paper card and the questionnaire for each individual respondent



Storage and Shipment of Samples



- After collection, samples were dried overnight in a drying box with desiccants and a humidity indicator card
- Appropriately packaged DBS samples were transported to the SRL Ranbaxy collection centres
- The collection centres were responsible for transporting samples in a biosafe manner to the Ranbaxy lab in Mumbai



External Quality Control

- **A sub-sample of more than 5,000 DBS samples was sent to the National AIDS Research Institute (NARI) in Pune for external quality control (QC)**
- **All positive samples and 5% of negative samples were sent for external QC**

Linking HIV Test Results to the Questionnaire Data

- **The HIV test results were linked to the questionnaire data through barcodes**
- **To further preserve anonymity, cluster and household numbers were scrambled before the questionnaire data file was merged with the HIV test result file**

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HIV Prevalence Results

Coverage of HIV Testing

- Blood samples for HIV testing were collected from **women age 15-49** and **men age 15-54** in selected households
- Blood **could not be collected** in the state of Nagaland due to local opposition
- NFHS-3 final HIV prevalence estimates are based on **102,946 HIV samples (50,093 from men and 52,853 from women)** HIV blood samples

Coverage of HIV Testing

- **Percent of eligible women age 15-49 and men age 15-54 whose blood was tested for HIV**
 - **Women: 85 percent**
 - **Men: 78 percent**
- **Response rates are comparable to HIV test response rates on other national household surveys worldwide**

Non-Response Rates by Reason

Reason	Women (%)	Men (%)
Not interviewed*	6	14
Refused to give blood	6	5
Absent at time of blood collection	1	2
Other	1	2

*Persons who were not interviewed were not eligible for blood collection

Response Rates in Six States

State	Women (%)	Men (%)
Tamil Nadu	93	90
Manipur	91	82
Andhra Pradesh	85	81
Uttar Pradesh	83	79
Karnataka	82	72
Maharashtra	78	68

Response rates are higher than the national average in Tamil Nadu and Manipur, about the same as the national average in UP and Andhra Pradesh, and lower than the national average in Maharashtra and Karnataka

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 HIV prevalence

HIV Prevalence

HIV prevalence for women and men age 15-49 in India

➤ **Total: 0.28%**

Confidence interval: 0.23-0.33

➤ **Women: 0.22%**

➤ **Men: 0.36%**

HIV Prevalence by Residence and Sex, India

Sex	Women (%)	Men (%)	Total (%)
Urban	0.29	0.41	0.35
Rural	0.18	0.32	0.25
India	0.22	0.36	0.28

HIV Prevalence by State

State	Total (%)	Women (%)	Men (%)
Manipur	1.13	0.76	1.59
Andhra Pradesh	0.97	0.76	1.22
Karnataka	0.69	0.54	0.86
Maharashtra	0.62	0.48	0.78
Tamil Nadu	0.34	0.40	0.27
Uttar Pradesh	0.07	0.05	0.10
Non-high prevalence states	0.12	0.08	0.16
India	0.28	0.22	0.36

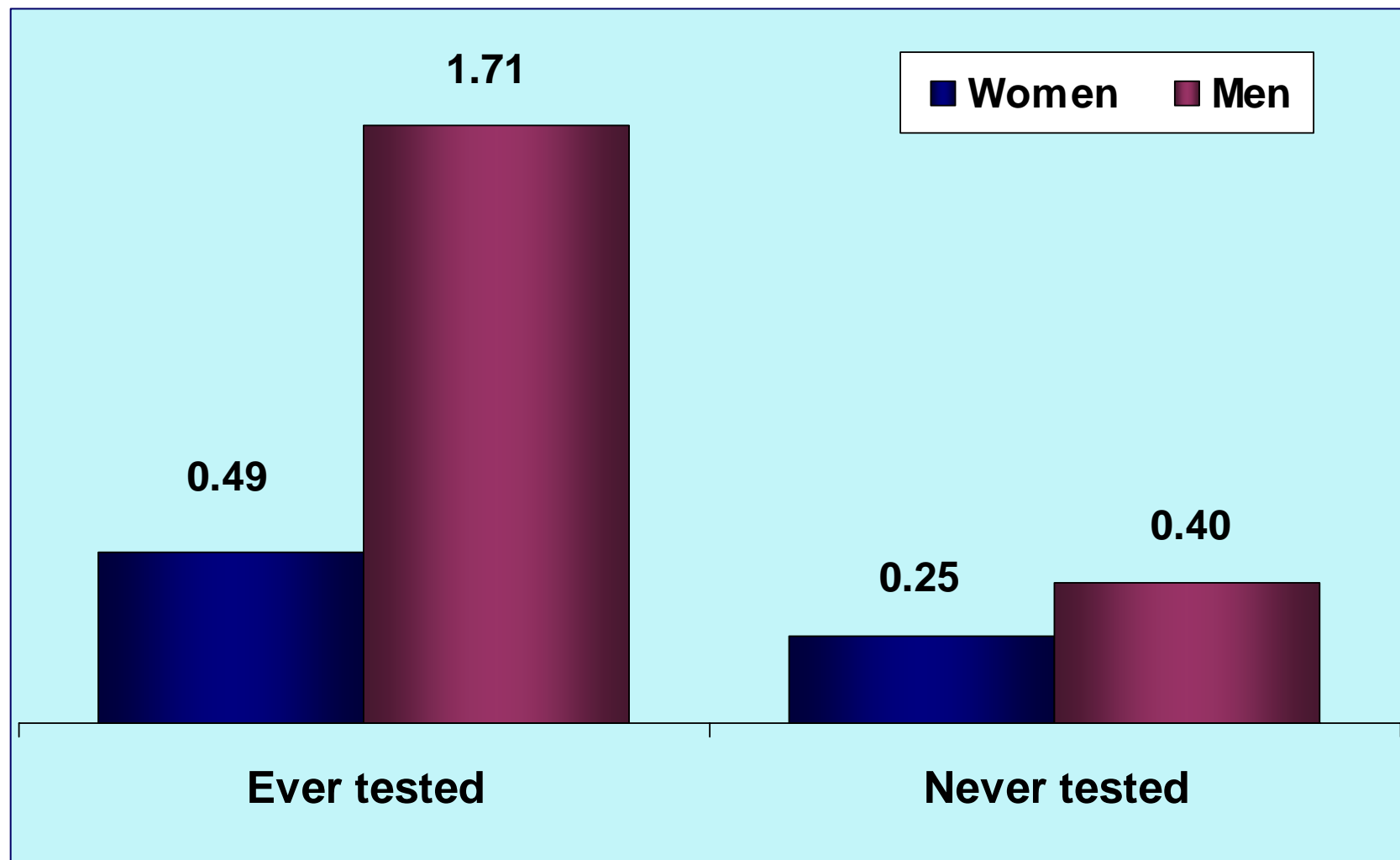
Ratios of HIV Prevalence Rates by Residence and Sex

State	Female:Male	Rural:Urban
Manipur	1:2.1	NA
Andhra Pradesh	1:1.6	NA
Karnataka	1:1.6	NA
Maharashtra	1:1.6	NA
Tamil Nadu	1:0.7	NA
Uttar Pradesh	1:2.1	NA
Non-high prevalence states	1:2.1	NA
India	1:1.6	1:1.4

HIV Prevalence in India by Age

Age	Total (%)	Women (%)	Men (%)
15-19	0.04	0.07	0.01
20-24	0.18	0.17	0.19
25-29	0.35	0.28	0.43
30-34	0.54	0.45	0.64
35-39	0.37	0.23	0.53
40-44	0.30	0.19	0.41
45-49	0.33	0.17	0.48
50-54	NA	NA	0.34

HIV Prevalence by Prior HIV Testing



HIV Status among Married Couples

- **NFHS-3 data on women and men can be linked to identify married couples**
- **Married couples in which both the wife and the husband were tested for HIV in NFHS-3 can be studied to examine HIV discordance**
- **The study of HIV discordance is important for designing effective HIV/AIDS interventions**

HIV Discordance among Couples

- Among the 27,771 married couples who were tested for HIV in NFHS-3, there were **138 couples** in which the wife or the husband or both were HIV positive
- Among these 138 couples
 - For **22%**, both the **husband and wife** were HIV positive
 - For **64%**, only the **husband** was HIV positive
 - For **14%**, only the **wife** was HIV positive

HIV Prevalence Summary

- **HIV prevalence among the household population in the 15-49 age group in India is low (0.28%)**
- **HIV prevalence exceeds 0.5% in Manipur, Andhra Pradesh, Karnataka, and Maharashtra**
- **HIV prevalence is 61% higher among males than among females**
- **HIV prevalence is 40% higher in urban areas than in rural areas**

Summary

- **Based on the NFHS-3 estimate of HIV prevalence and other data, the Government of India revised its official HIV estimate from 0.92% to 0.36%**
- **However, strong programmes are still required to prevent the further spread of HIV**