



South African National HIV Prevalence, Incidence and Behavior Survey, 2012

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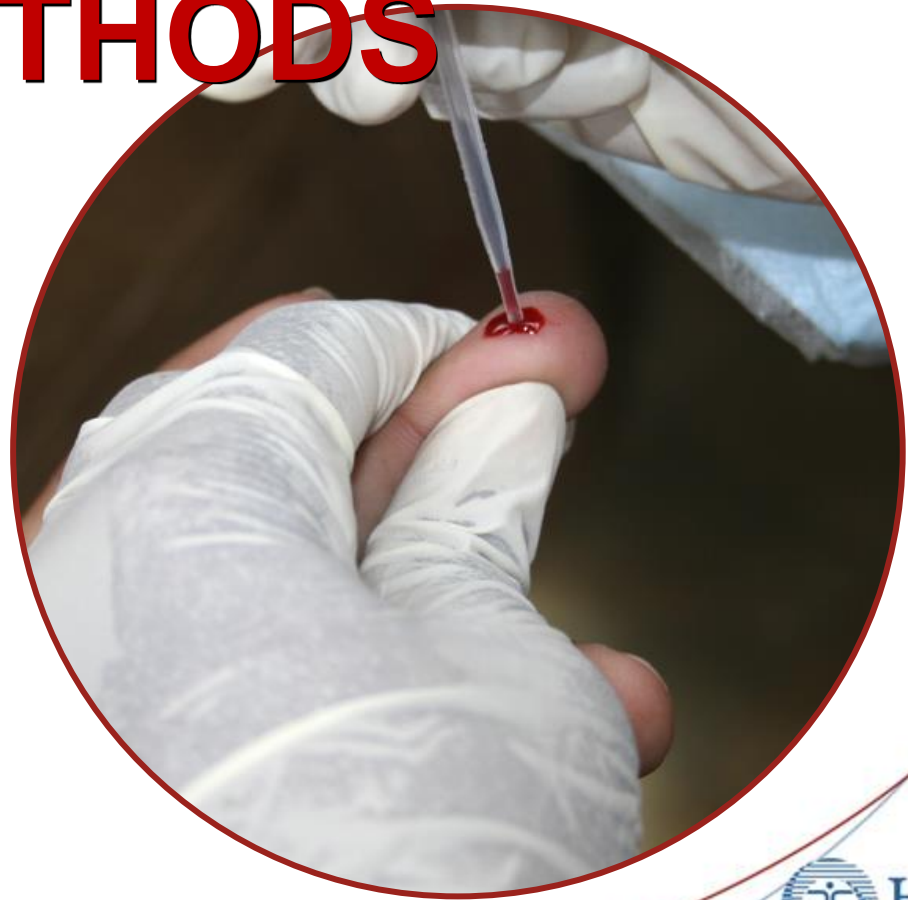
Background

- This is the fourth national population-based survey, three similar surveys were conducted by the same team in 2002, 2005 and 2008.
- The study has provided an important gauge of the HIV epidemic of South Africa.
- The results are used to both inform and evaluate important health programmes such as the National Strategic Plan (NSP) on HIV/AIDS, STI and TB, and the National Health Insurance, among others.

Objectives of the survey

- Main survey objectives:
 - to obtain national, representative data for the entire population
 - to estimate HIV prevalence & HIV incidence
 - to measure behavioral / socio-demographic and health indicators
- Reporting domains:
 - Age
 - Sex
 - Race
 - Locality type
(urban formal, urban informal, rural formal, rural informal)
 - Province

RESEARCH DESIGN AND METHODS



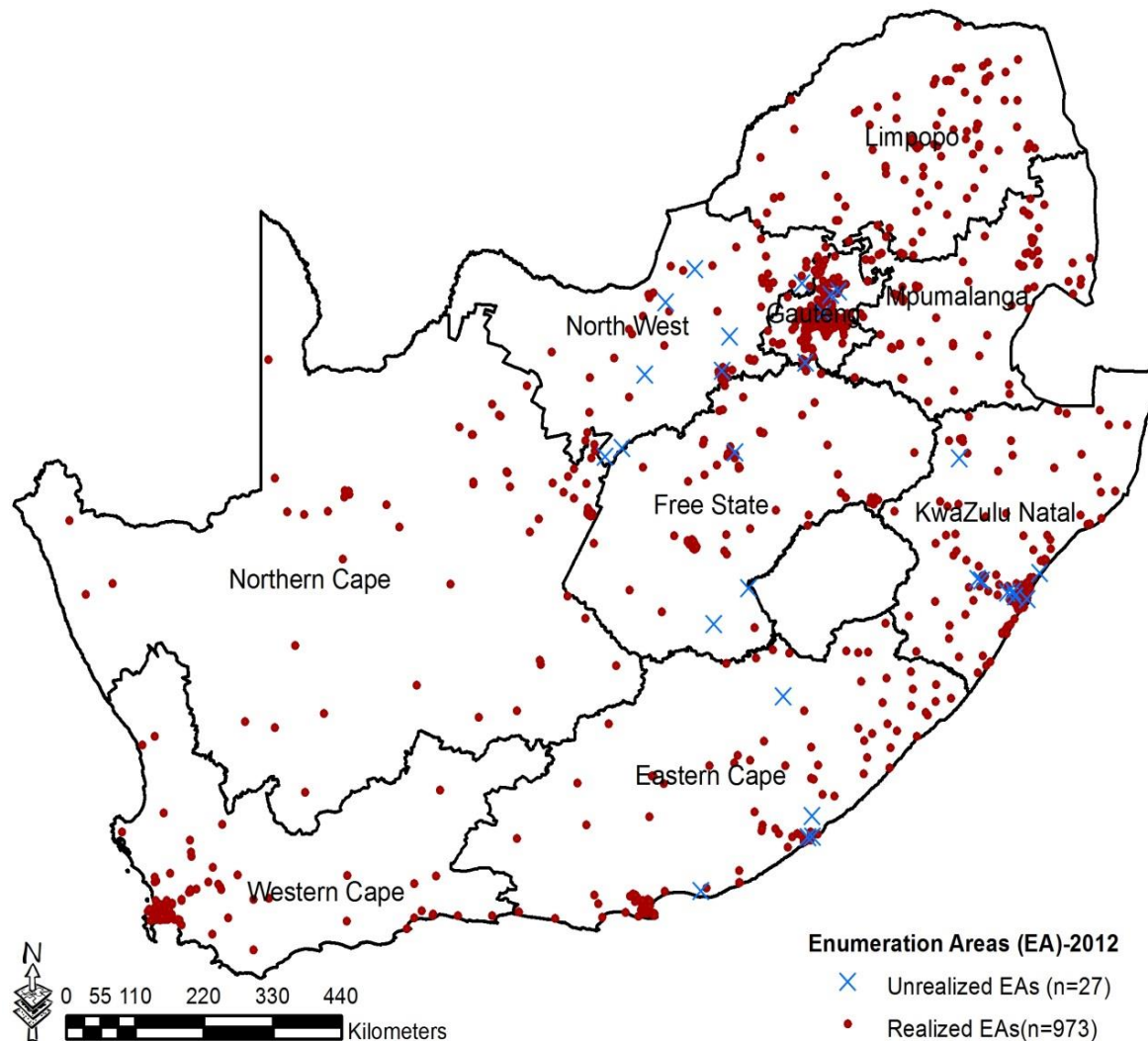
Sampling Designs

Multi-stage cluster sampling
Linked anonymous HIV testing

Study population:
 ≥ 2 years in 2002 & 2005;
under 2 year olds included in 2008 & 2012

Specimens:
2002 oral; 2005, 2008, 2012 dried blood spot

Realised and unrealised EAs, South Africa 2012

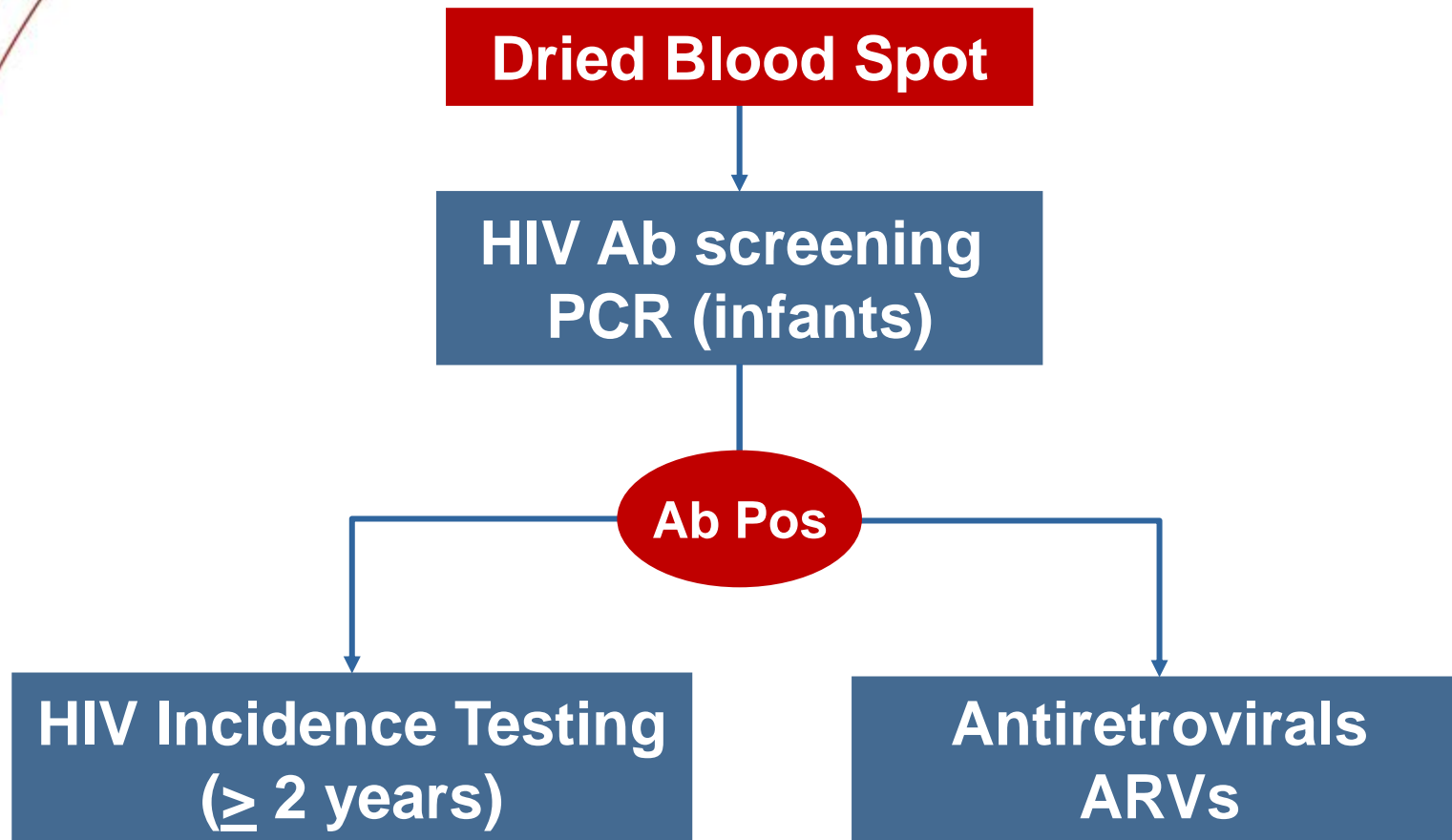


National HIV Household Survey South Africa 2012

- Survey period: January 2012 – November 2012
- All age groups eligible

- **38,431 interviewed**
- **28,997 tested for HIV**

Laboratory Testing



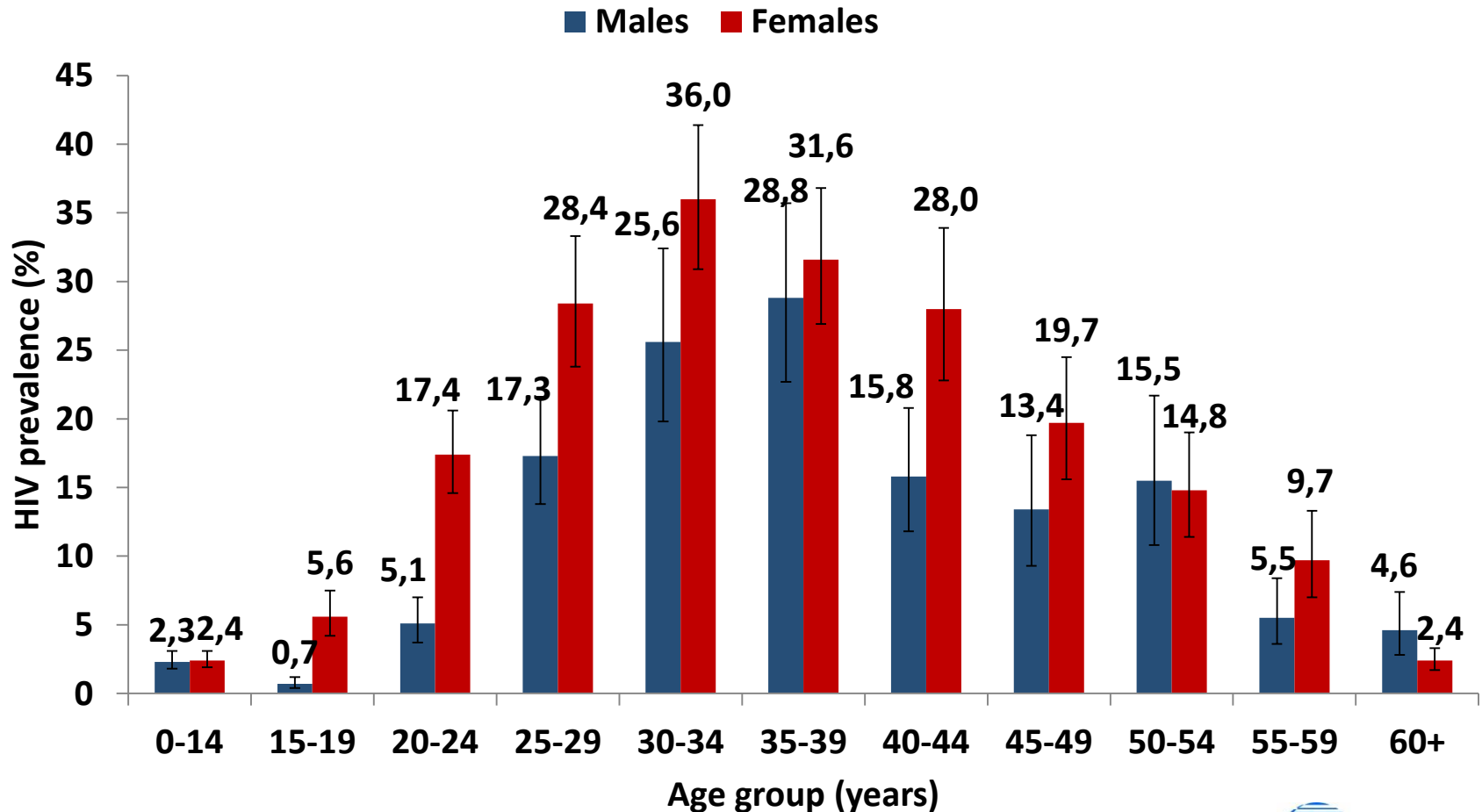
HIV PREVALENCE



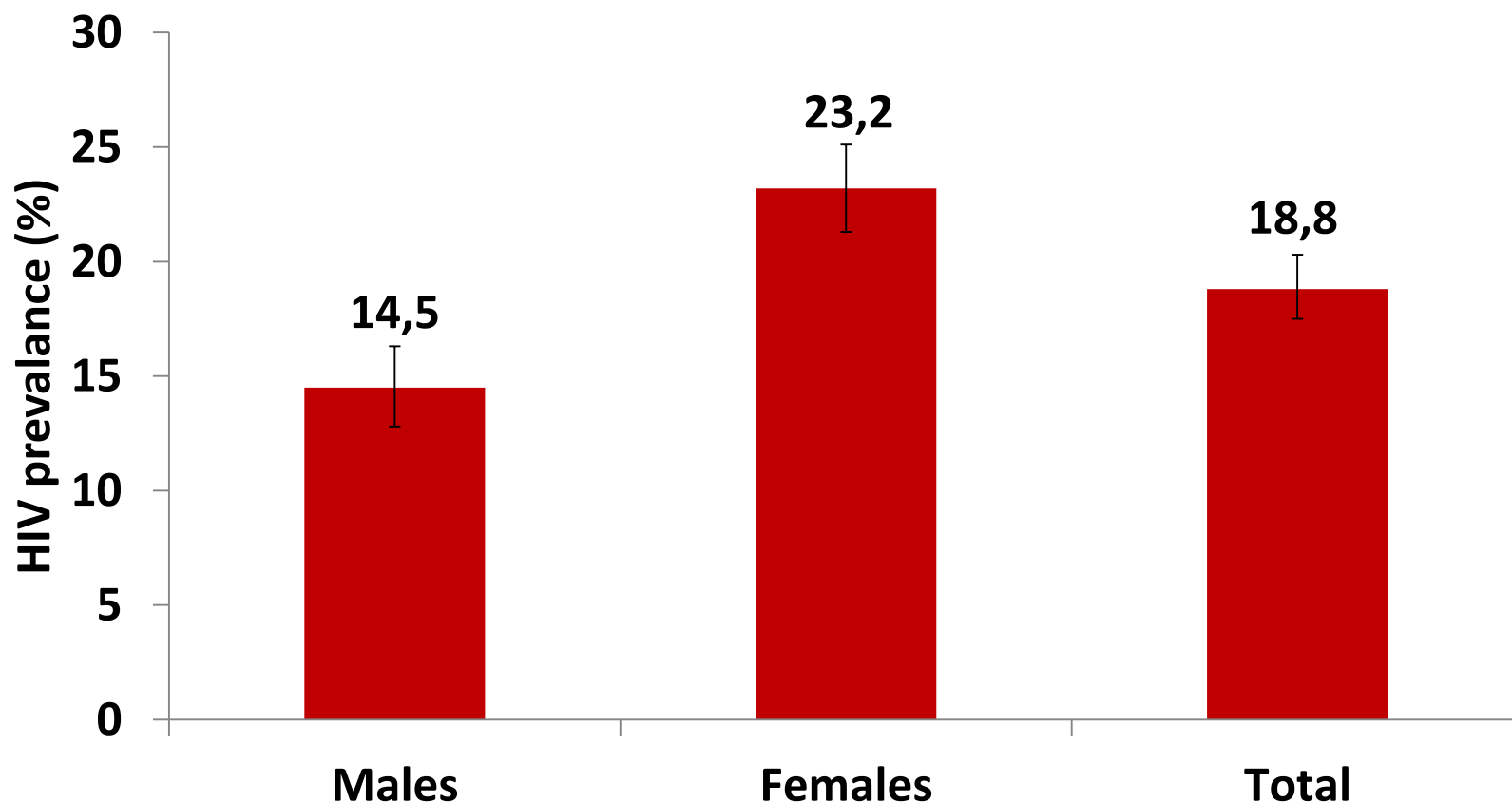
National HIV Household Survey South Africa 2012

- HIV prevalence, total population:
12.2% (2008: 10.6%)
 - **6.4 million living with HIV/AIDS**
(based on Statistics South Africa's mid-year
population estimate for 2012: **52.3 million**)

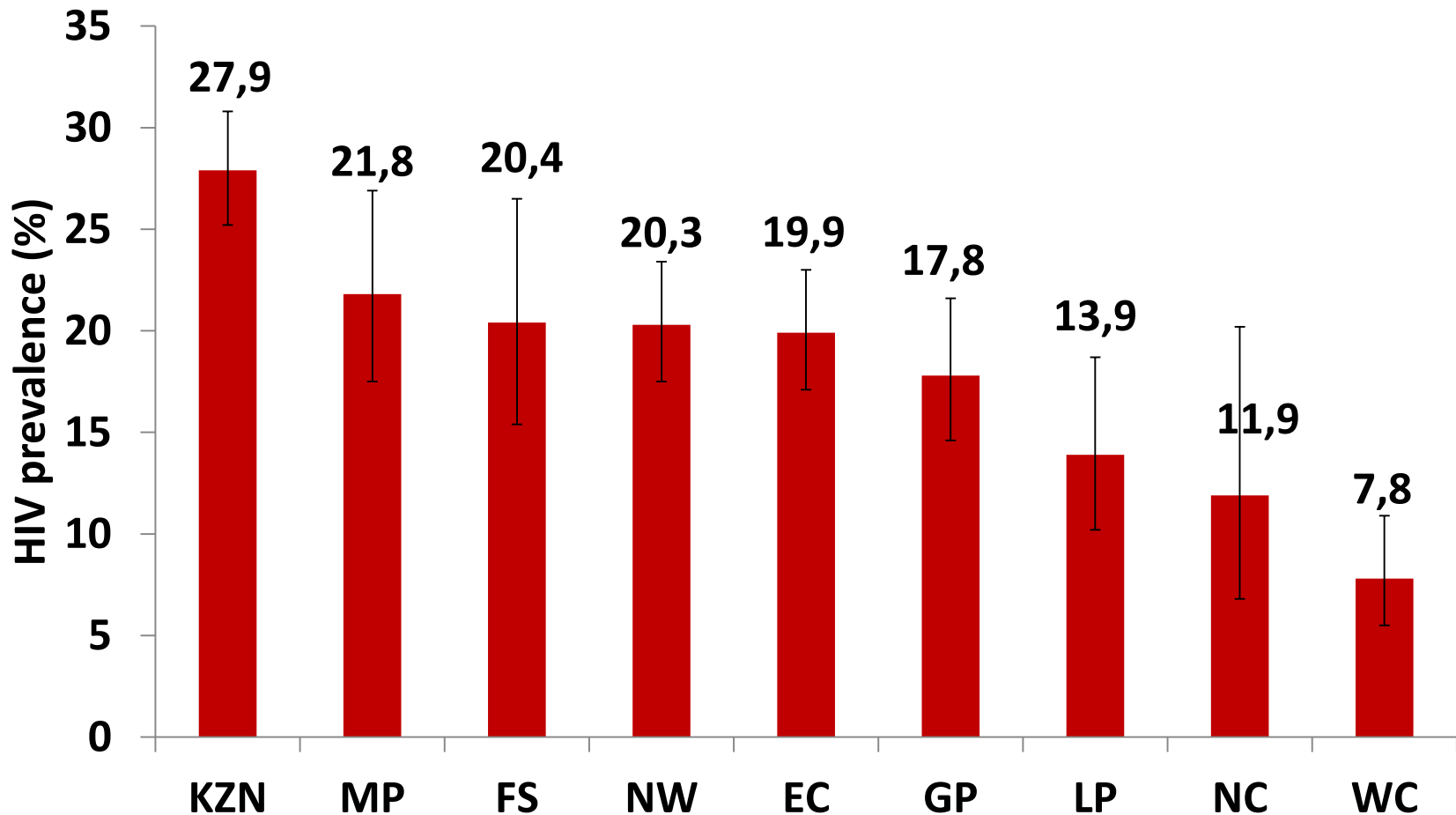
HIV prevalence by age and sex, South Africa, 2012



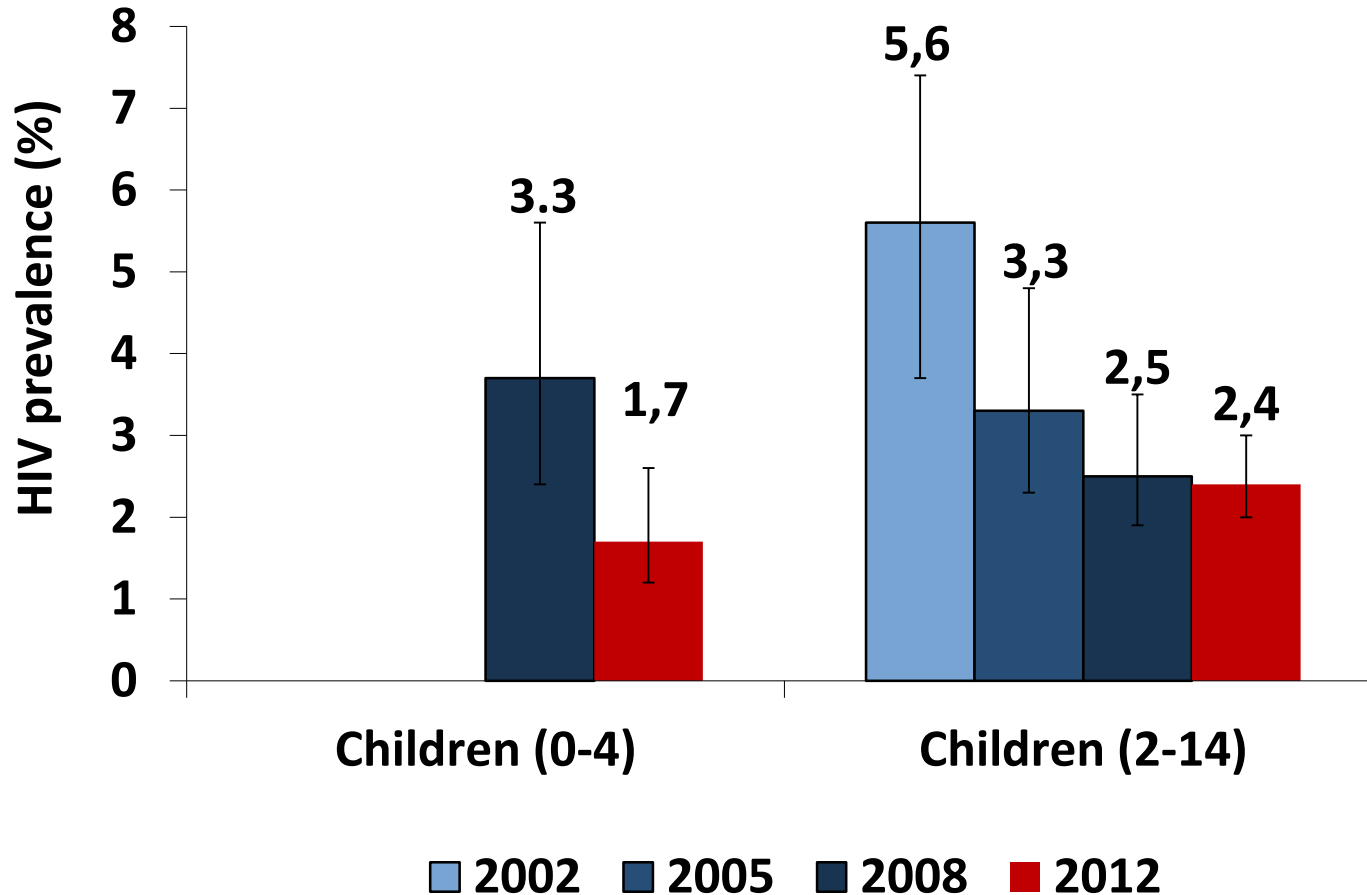
HIV prevalence by sex (15-49 years), South Africa, 2012



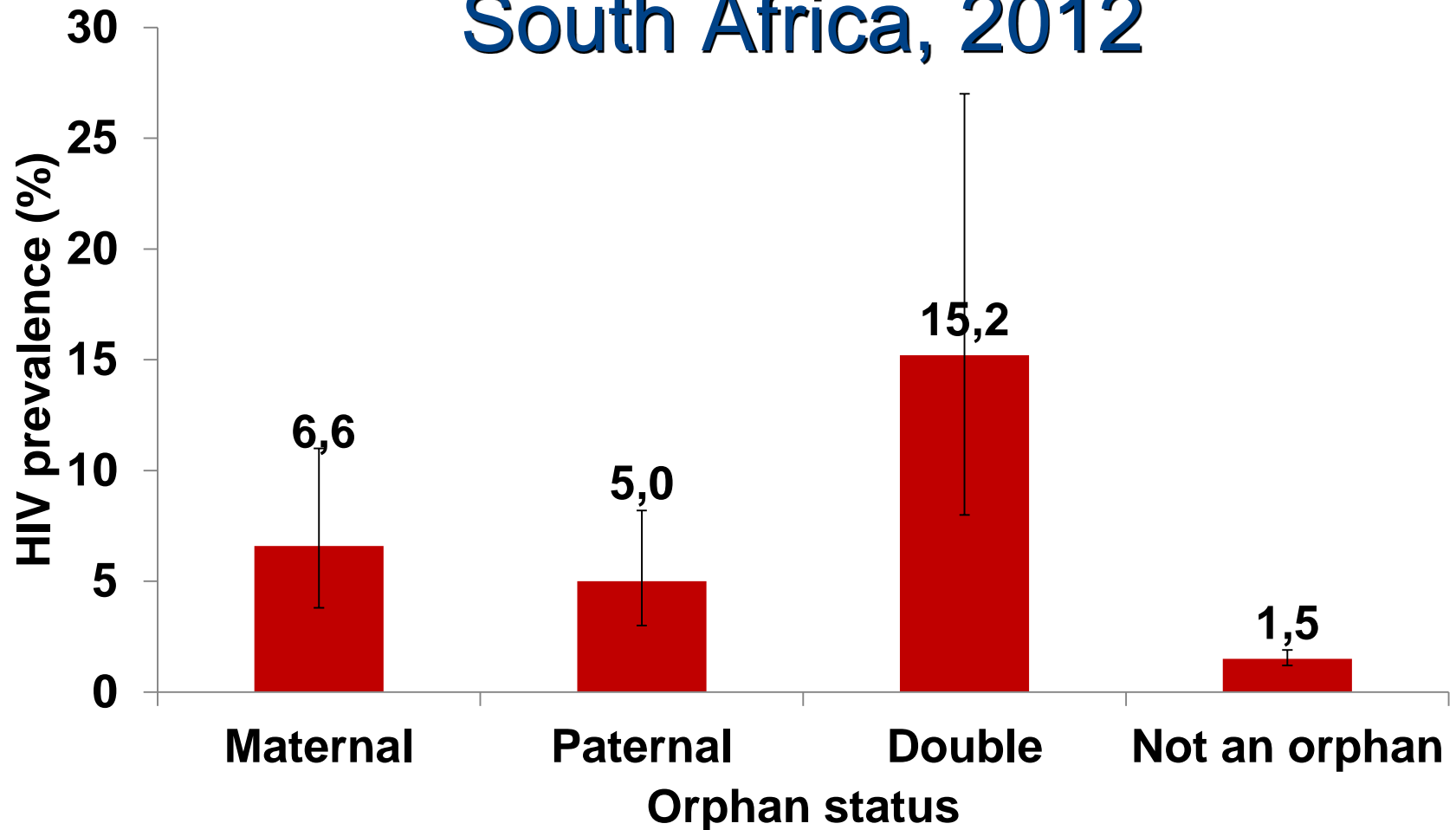
HIV prevalence by province (15-49 years), South Africa, 2012



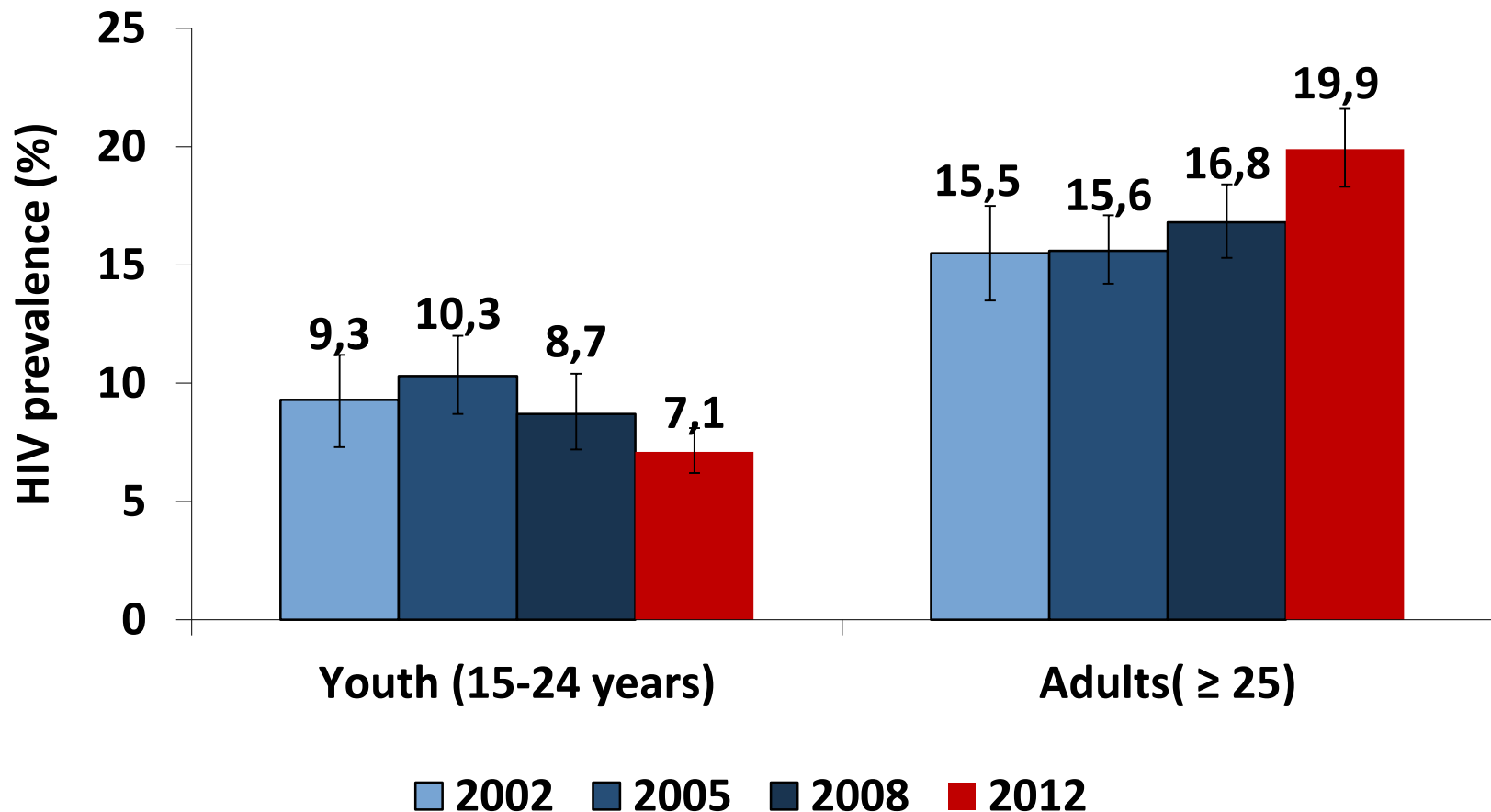
Trends in HIV prevalence in children, South Africa 2002-2012



HIV prevalence by orphanhood status among children 0-14 years, South Africa, 2012



Trends in HIV prevalence by age, South Africa 2002-2012



ANTIRETROVIRAL TREATMENT (ART) EXPOSURE



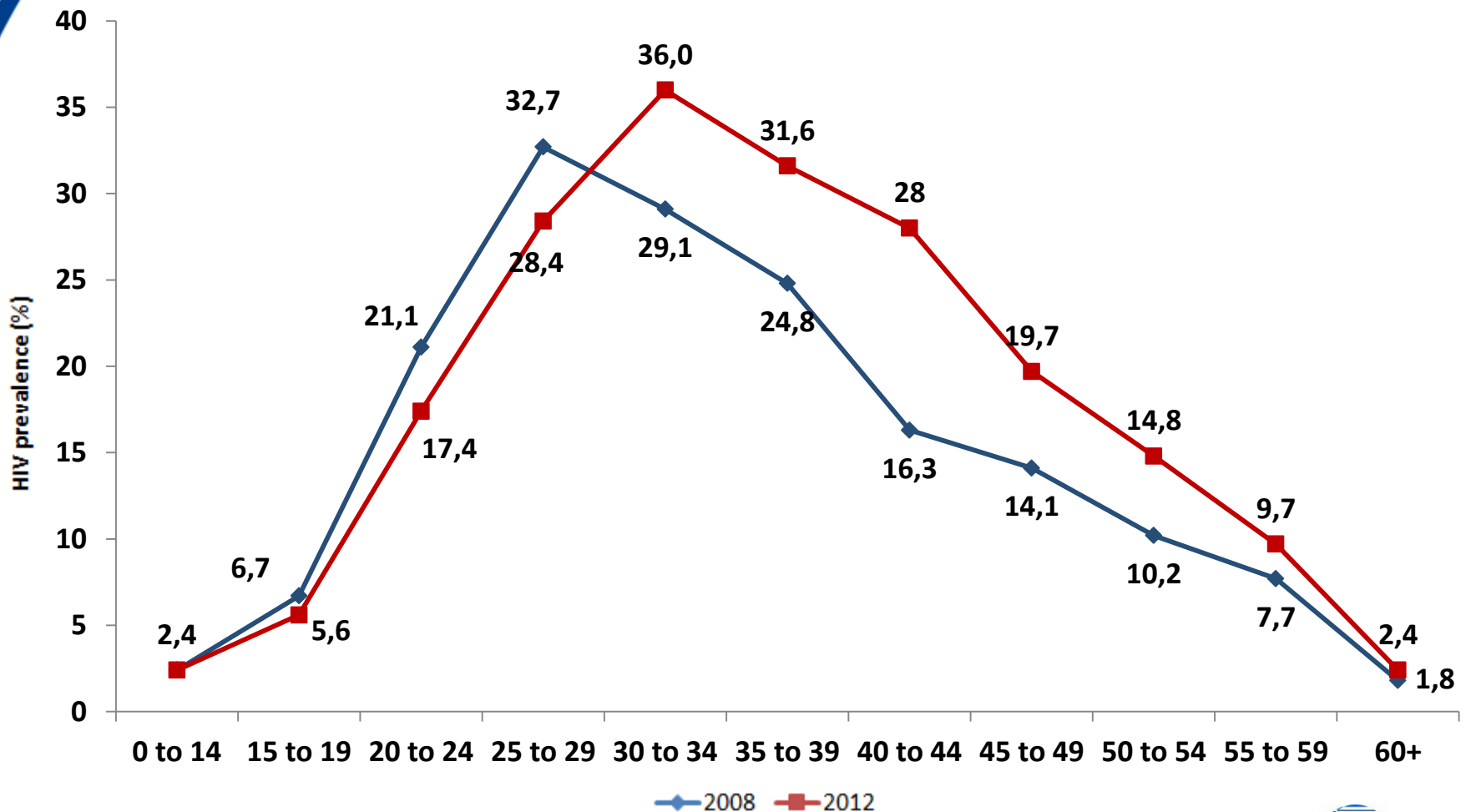
ART Exposure, South Africa mid-2012

Variable	Estimated number of people living with HIV (n)	Estimated number of people on ART (n)	Proportion of people living with HIV on ART (%) [95% CI]
National	6,422,000	2,002,000	31.2 [28.1-34.5]
Males	2,531,000	651,000	25.7 [21.2-30.8]
Females	3,873,000	1,344,000	34.7 [31.4-38.2]

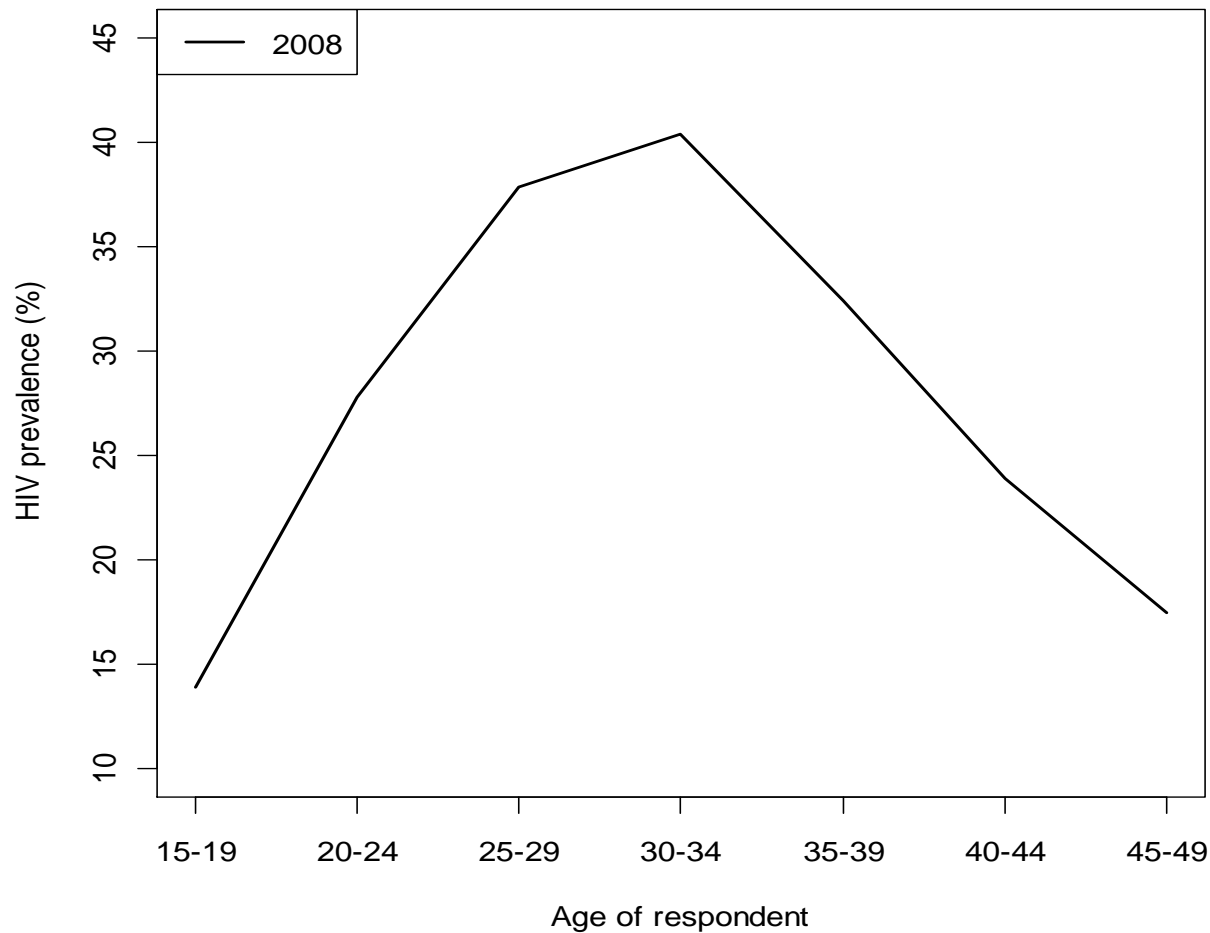
ART Exposure by Age Group, South Africa mid-2012

Variable	Estimated number of people living with HIV (n)	Estimated number of people on ART (n)	Proportion of people living with HIV on ART (%) [95% CI]
Age group			
0-14	368,879	166,025	45.1 [33.9-56.9]
15-24	720,269	102,868	14.3 [10.0-20.0]
25-49	4,705,506	1,466,412	31.2 [27.4-35.2]
50 and older	610,323	260,490	42.7 [35.7-50.0]
15-49	5,425,776	1,569,280	28.9 [25.6-32.5]
Total	6,422,179	2,002,350	31.2 [28.1-34.5]

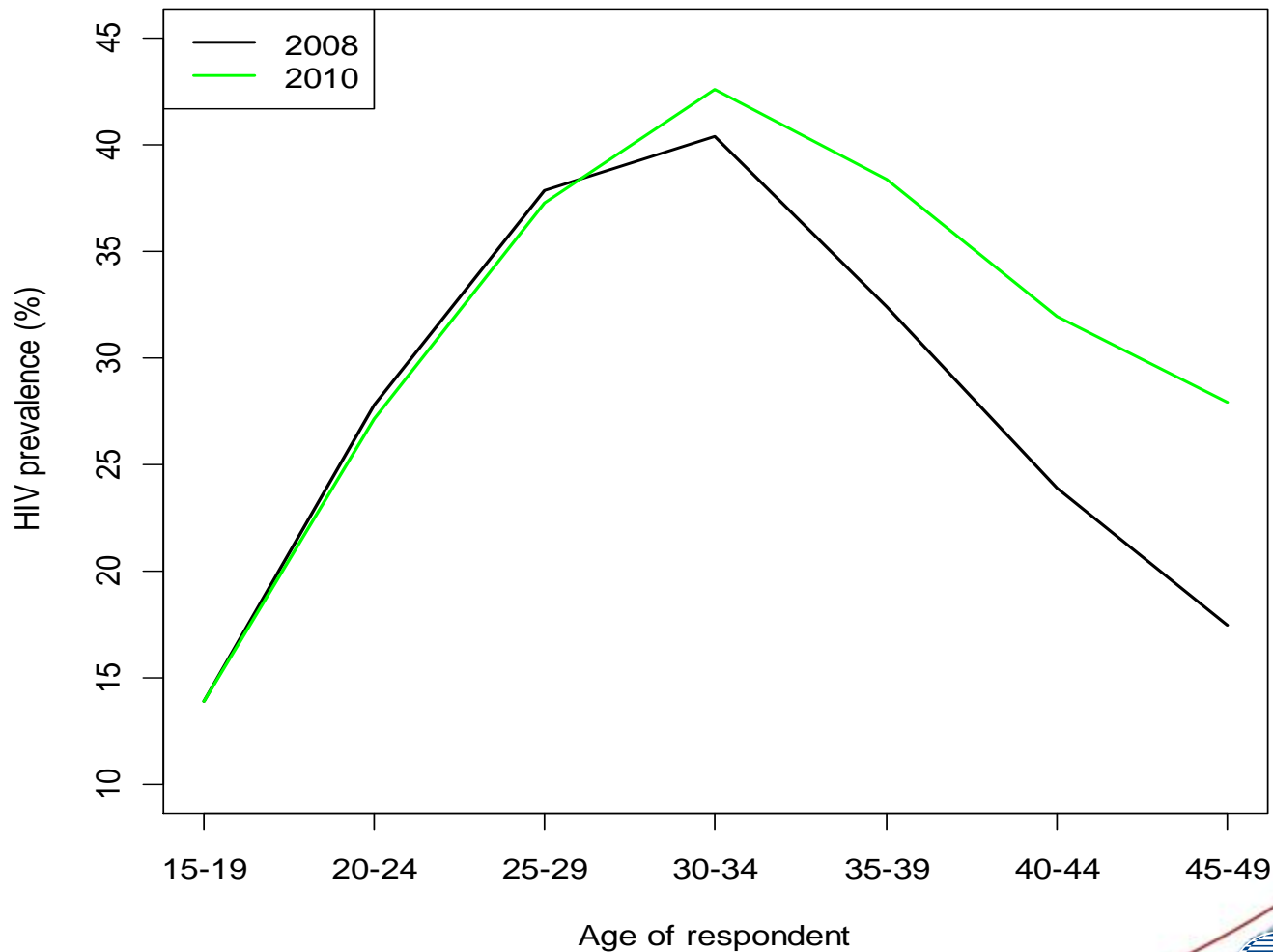
HIV prevalence among females, South Africa 2008-2012



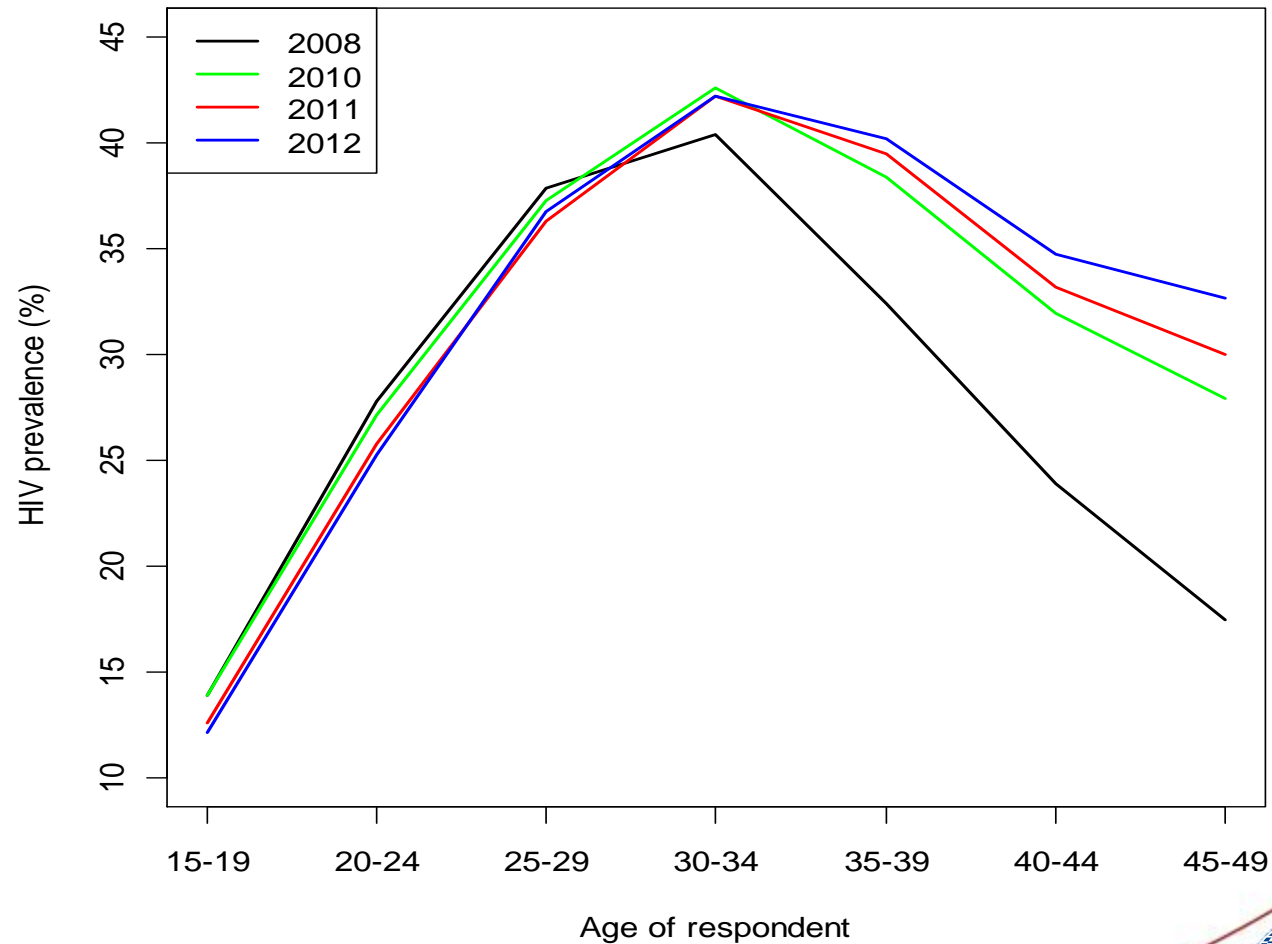
National HIV by 5 year age group



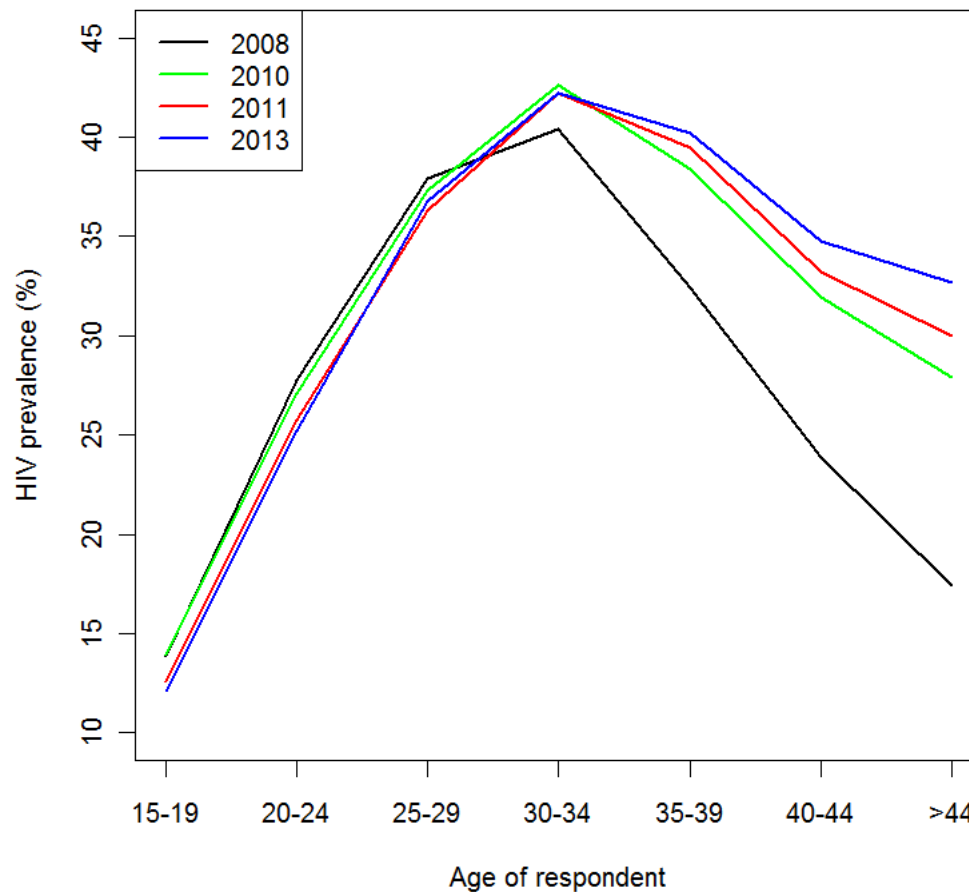
National HIV by 5 year age group



National HIV by 5 year age group



National HIV by 5 year age group



HIV INCIDENCE



Measuring HIV incidence South Africa 2012

1. Direct HIV incidence using blood specimens
 - Multi - assay testing algorithm

HIV incidence rates by age group, South Africa 2012

Age Groups	HIV incidence % (95% CI)
Age ≥ 2years	
Total	1.07 (0.87 – 1.27)
Male	0.71 (0.57 - 0.85)
Female	1.46 (1.18 - 1.84)
Age 15-24 years	
Total	1.49 (1.21 – 1.88)
Male	0.55 (0.45 - 0.65)
Female	2.54 (2.04 - 3.04)
Age 15-49 years	
Total	1.72 (1.38 – 2.06)
Male	1.21 (0.97 - 1.45)
Female	2.28 (1.84 - 2.74)

HIV incidence rates by behavioral and socio-demographic variables (15-49 age group), South Africa 2012

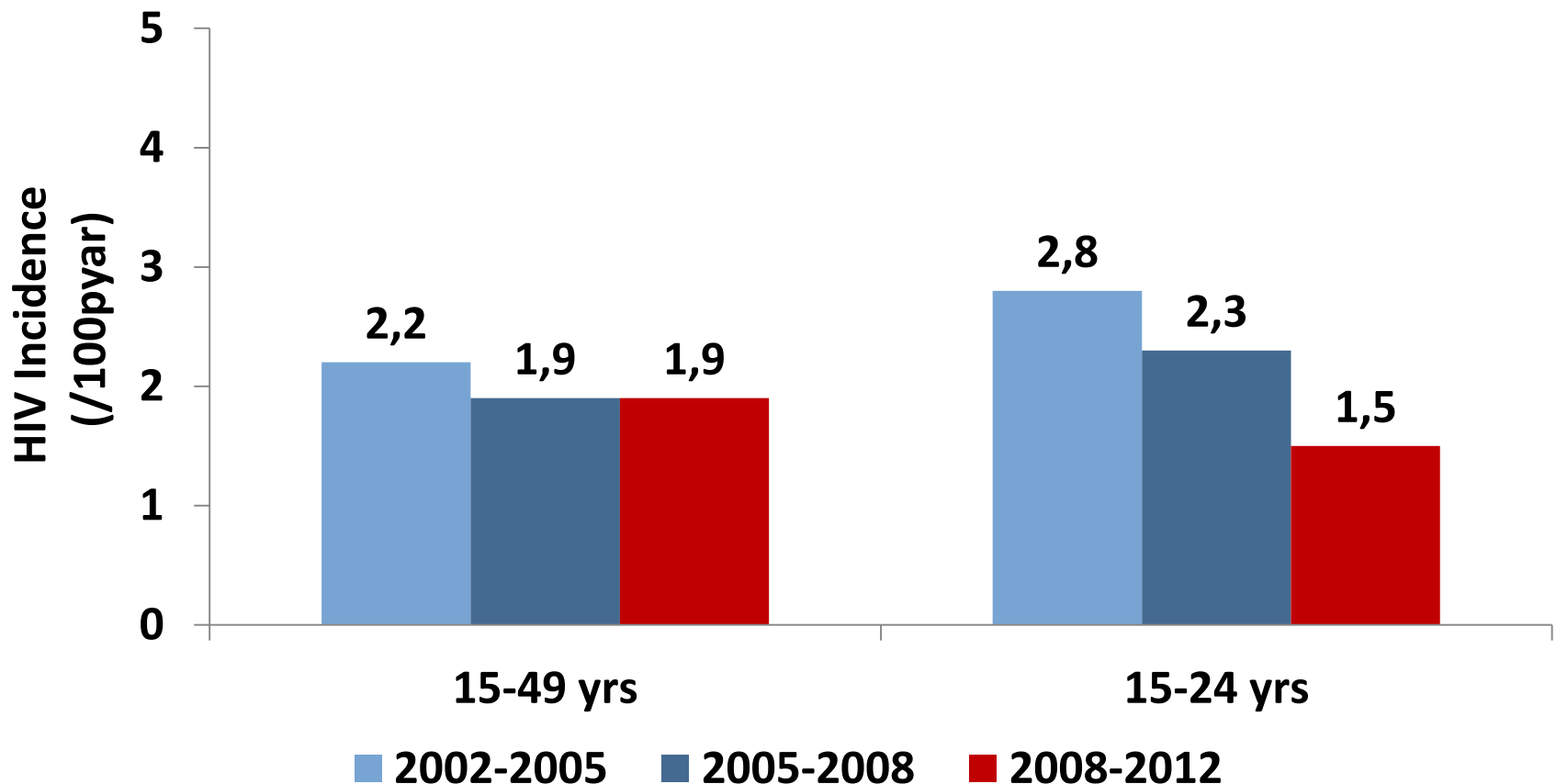
Variables	HIV incidence % (95% CI)
Marital status	
Married	0.55 (0.45 - 0.65)
Single	2.28 (1.82 – 2.74)
Cohabiting (living together)	3.08 (2.48-3.68)
Number of sexual partners in the past 12 months	
One partner	1.67 (1.33 - 2.01)
More than one partner	2.43 (1.95 - 2.91)
Selected at-risk populations	
Black African females 20-34 years	4.54 (3.64-5.44)
Black African males 25-49 years	1.84 (1.48-2.20)

Measuring HIV incidence South Africa 2012

2. Indirect HIV incidence using a mathematical model

- HIV incidence estimation from HIV prevalence data collected in repeated national population-based surveys (HSRC 2002, 2005, 2008 & 2012)

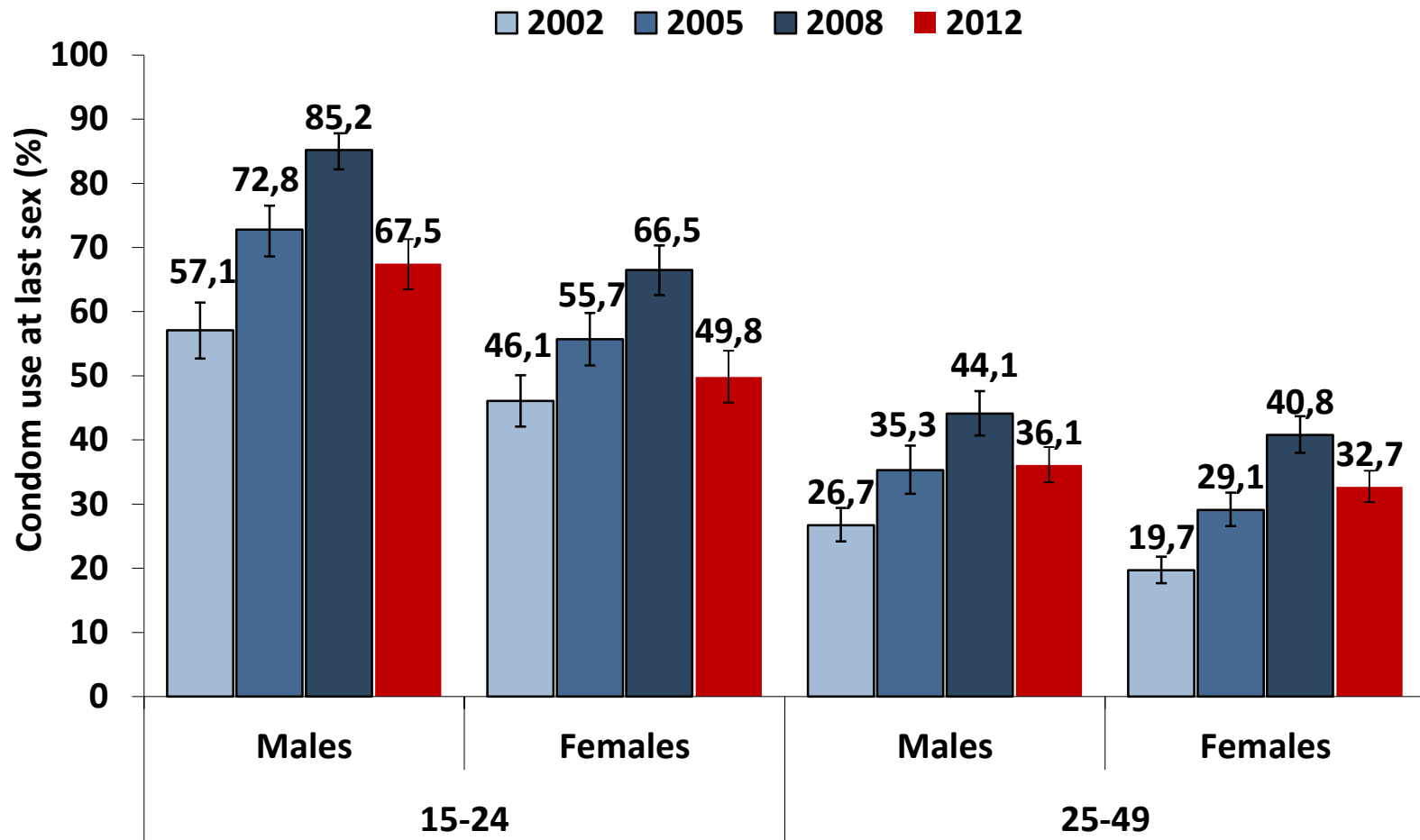
Modelled HIV incidence rates by age, South Africa 2002-2005, 2005-2008 and 2008-2012



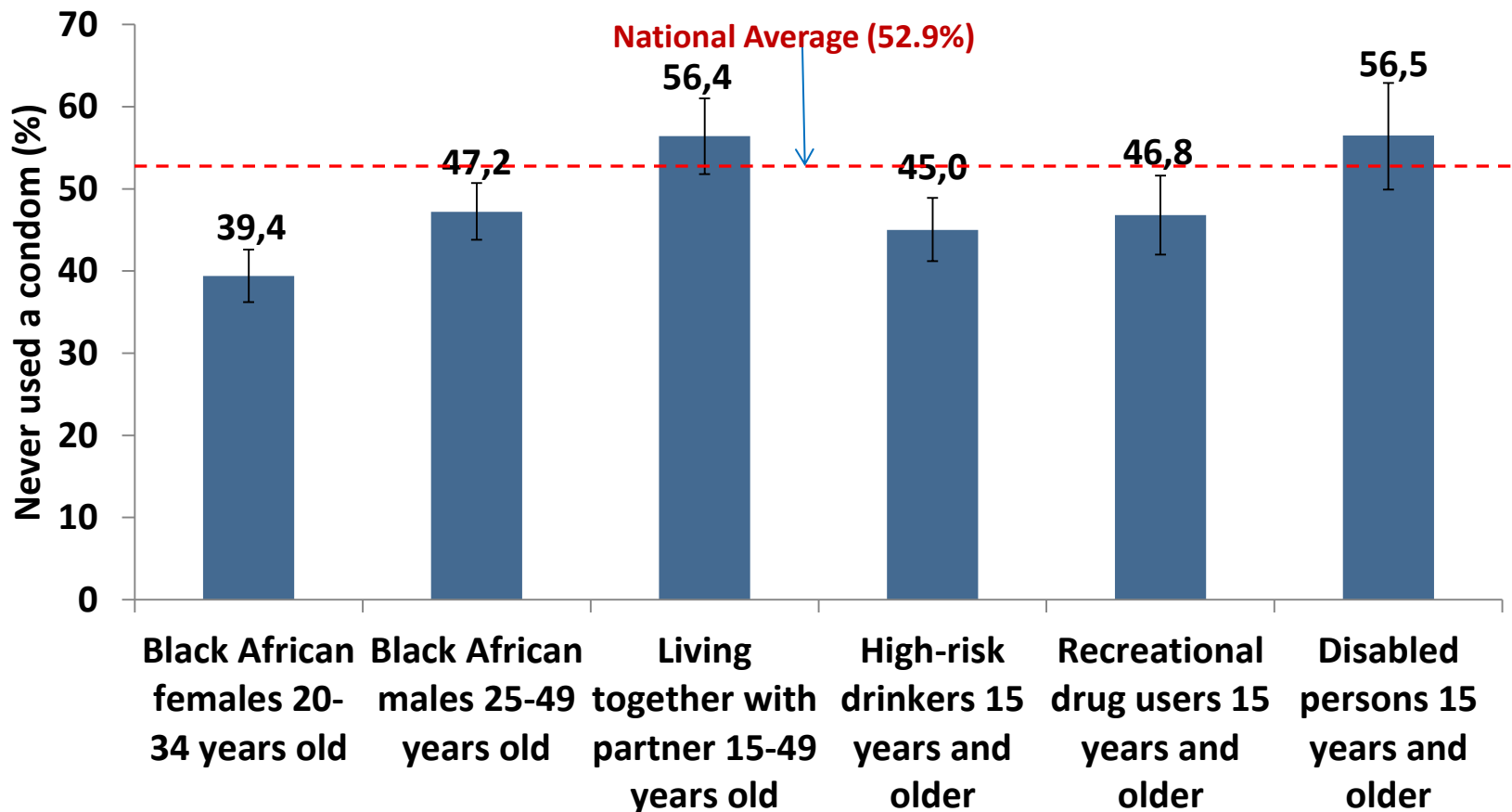
BEHAVIOURAL FINDINGS



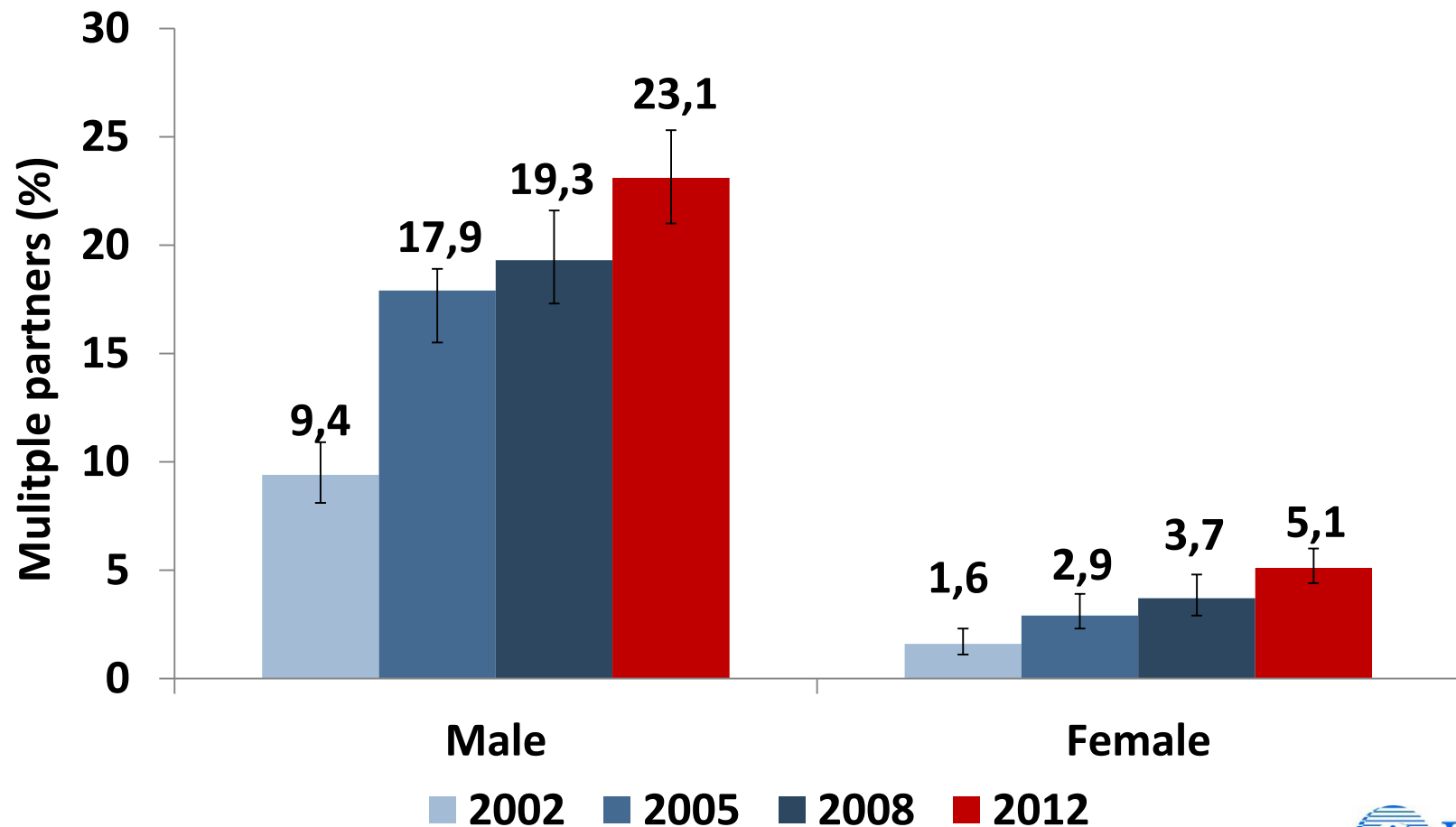
Condom use at last sex by age and sex, South Africa 2002-2012



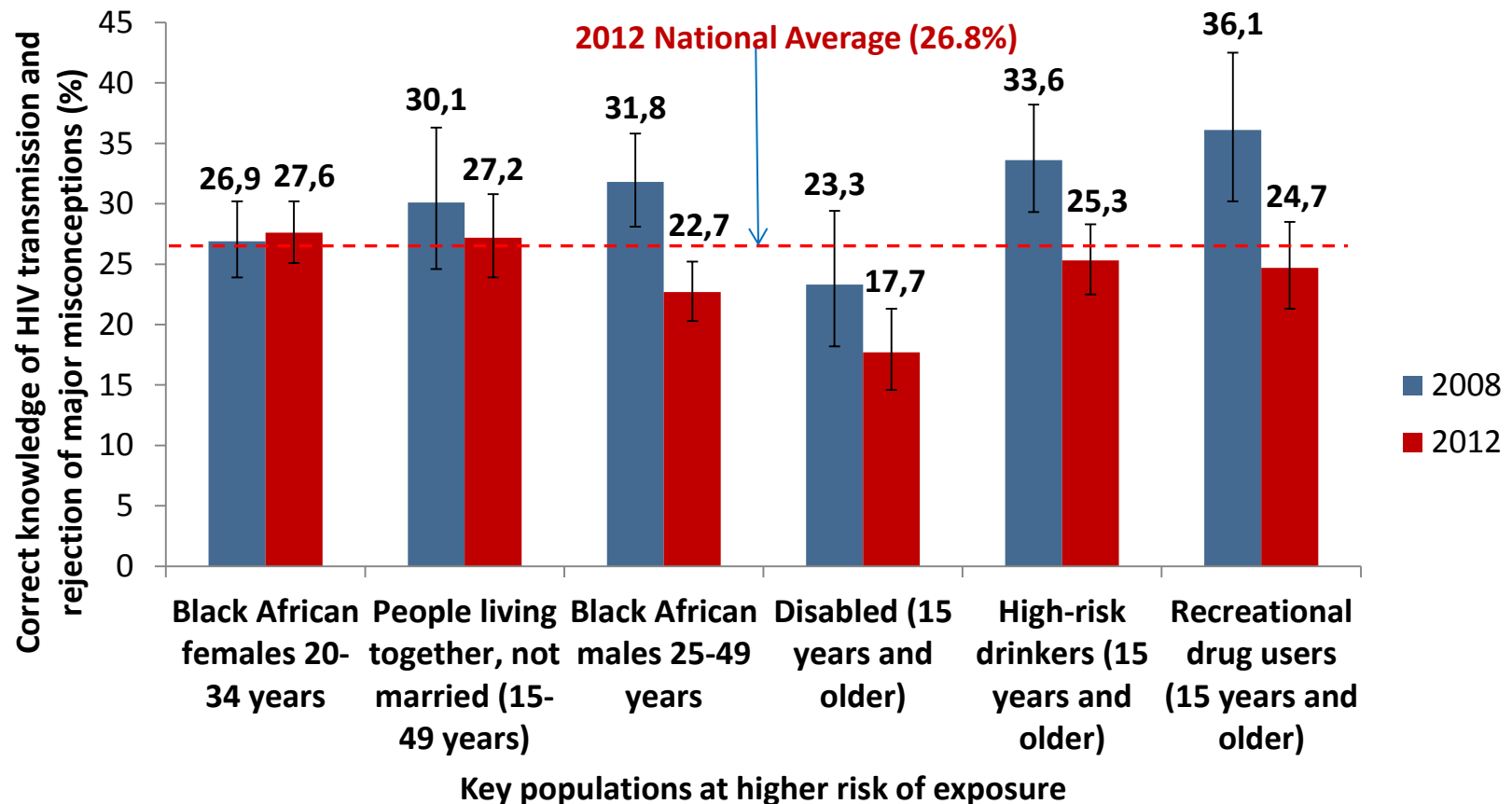
Never used a condom use among key populations, South Africa 2012



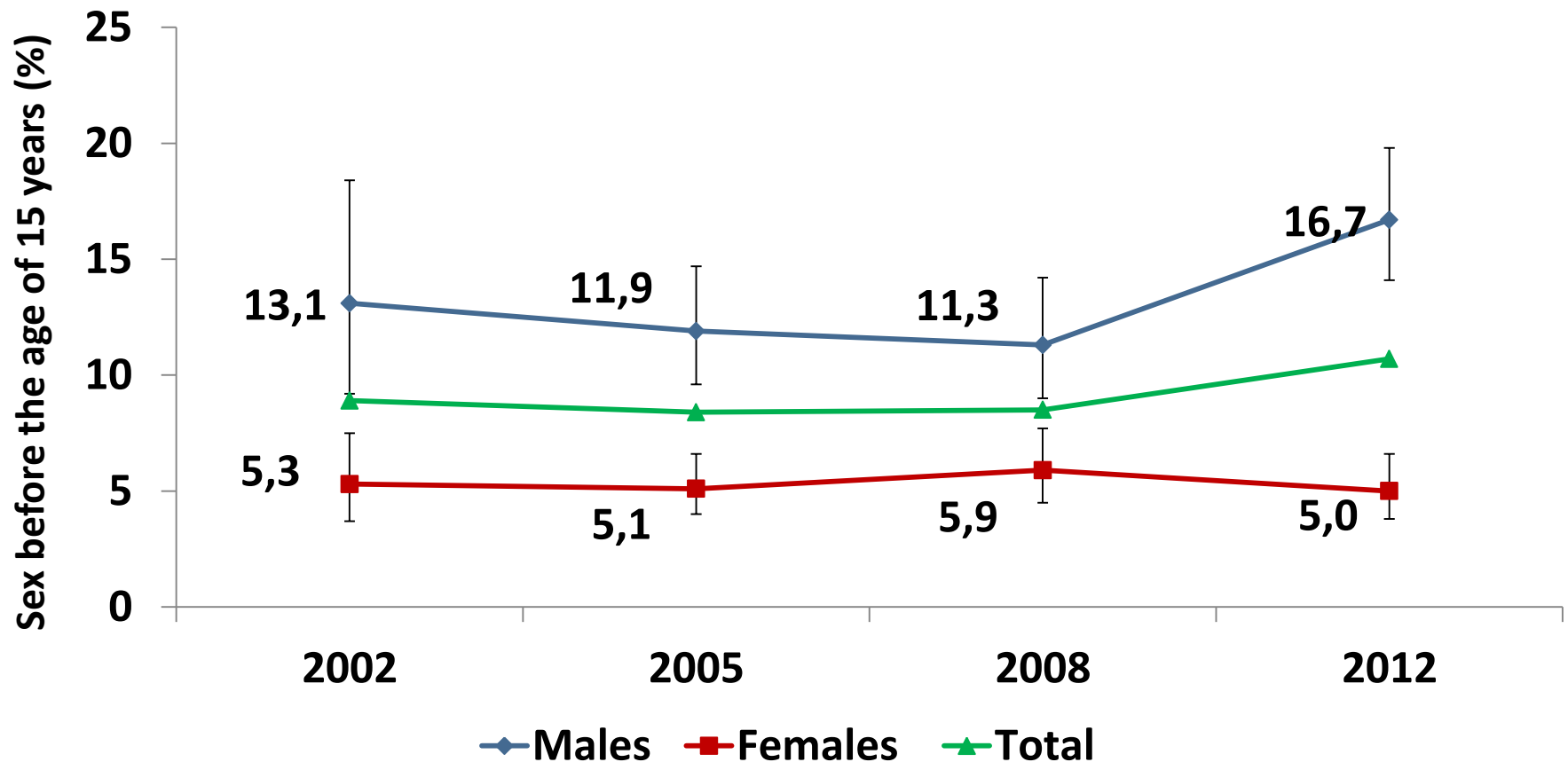
Multiple sexual partnerships (15-49 years), South Africa 2002-2012



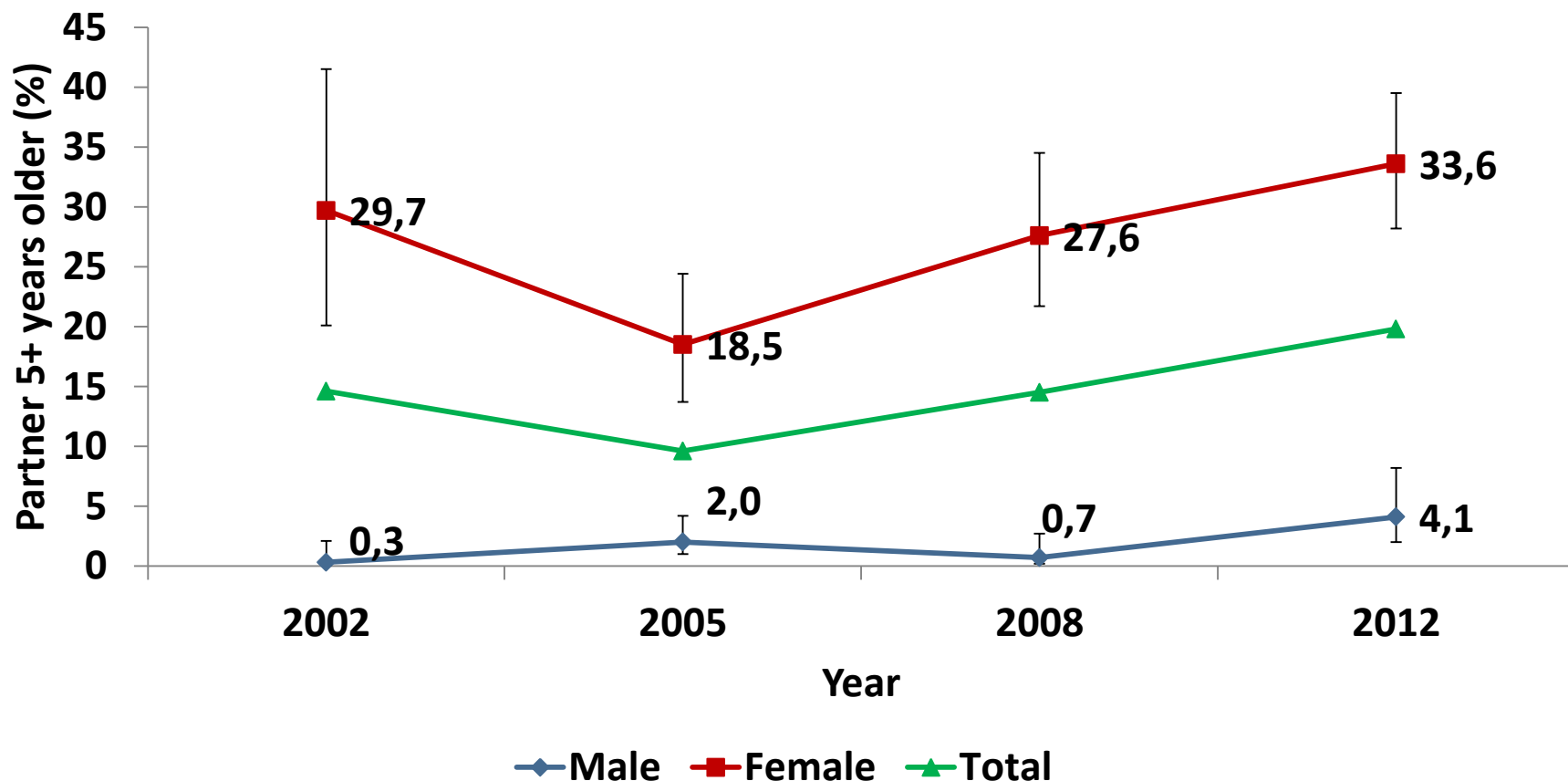
Correct HIV knowledge among key populations, South Africa 2008 and 2012



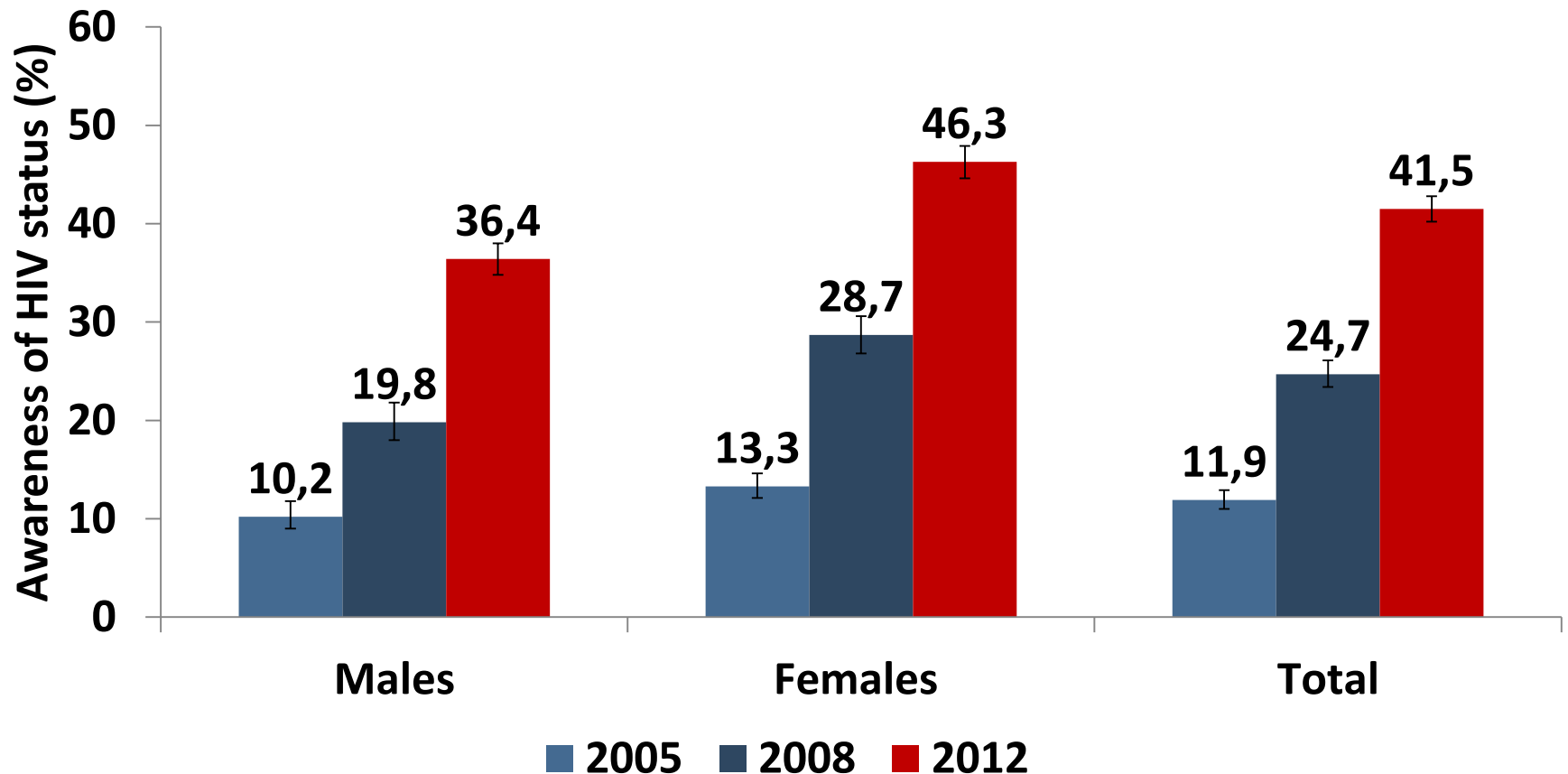
Sexual debut before age 15 years (15-24 years), South Africa 2002-2012



Age-disparate sexual relationships (15-19 years) by sex, South Africa 2005-2012



Awareness of HIV status among those who tested in the last 12 months, by sex (15 years and older), South Africa 2005-2012



Conclusions

- HIV prevalence increased substantially; gender, race & locality disparities continue
- Key populations at high risk of HIV exposure present a major source of concern
- Living together, not married, is associated with high HIV prevalence
- Increased exposure to ART
- HIV incidence remains at high levels, despite reduction in young women

Conclusion, continued

- HCT campaign increased awareness of HIV status
- Sexual debut of males before age 15 for 15-19 year olds has increased
- Increase in age-disparate relationships in females
- Multiple sexual partners have increased
- Condom use has declined
- Knowledge about sexual transmission of HIV is low

Recommendations

- Balance prevention and treatment
- Further strengthen and encourage HCT to address gender disparity
- Encourage consistent condom use
- Target key populations at high risk of HIV
- Encourage monogamy and faithfulness
- Promote HIV prevention in informal settlement