

# Condom Promotion for AIDS Prevention in the Developing World: Is it Working?

Norman Hearst, MD MPH<sup>1</sup> and Sanny Chen, MHS<sup>1,2</sup>

<sup>1</sup> University of California, San Francisco, USA

<sup>2</sup> San Francisco Department of Public Health, USA

Table 1. Seroconversion rates in cohort studies of HIV transmission within discordant couples

| Study                     | Study Site                        | Direction of Transmission | Condom Use |      |        |
|---------------------------|-----------------------------------|---------------------------|------------|------|--------|
|                           |                                   |                           | Always     | Some | Never  |
| Fischl 1987               | U.S.A.                            | Not specified             | 1/10       | -    | 12/14  |
| Goedert 1987              | U.S.A.                            | M+ F-                     | 0/6        |      | 4/18*  |
| Peterman 1988             | U.S.A.                            | M+ F-                     | -          | 0/4  | 10/51  |
|                           |                                   | M- F+                     | -          | 0/2  | 2/23   |
| Roumelioutou 1988         | Greece                            | M+ F-                     | 0/37       |      | 12/16* |
| Johnson 1989              | London                            | M+ F-                     | 0/4        |      | 15/74* |
| Laurian 1989              | France                            | M+ F-                     | 0/14       | -    | -      |
| van der Ende 1988         | Netherlands                       | M+ F-                     | 0/2        | 0/3  | 0/8    |
| Henry 1991                | U.S.A.                            | M+ F-                     | -          | -    | 1/1    |
| Kamenga 1991              | Zaire                             | M+ F-                     | 1/50       | 1/10 | -      |
|                           |                                   | M- F+                     | 3/56       | 1/1  | -      |
| Allen 1992                | Rwanda                            | M+ F-                     | 0/4        | 2/16 | 4/10   |
|                           |                                   | M- F+                     | 0/5        | 0/15 | 2/3    |
| European Study Group 1992 | 6 countries in European Community | M+ F-                     | 0/83       | 8/74 | 74/314 |
|                           |                                   | M- F+                     | 0/41       | 4/47 | 15/104 |

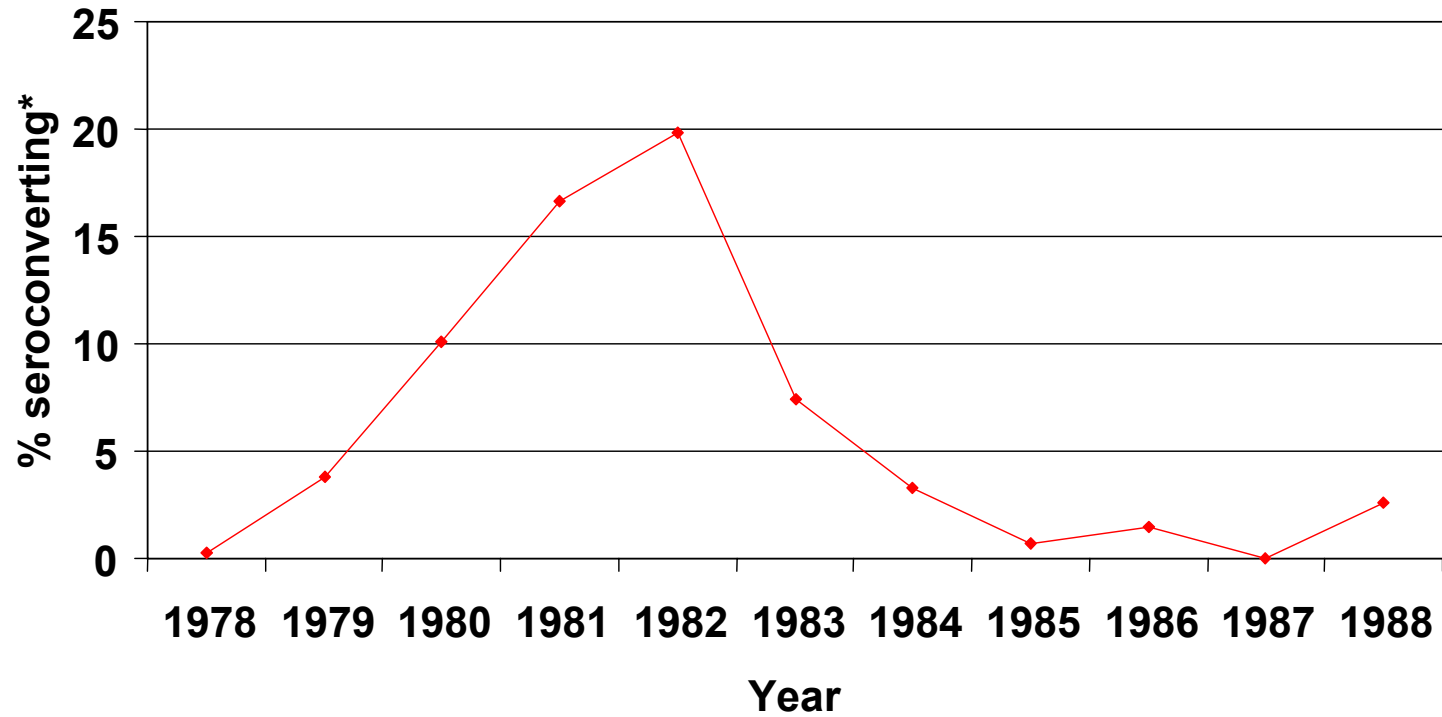
| Study          | Study Site | Direction of Transmission | Condom Use |      |       |
|----------------|------------|---------------------------|------------|------|-------|
|                |            |                           | Always     | Some | Never |
| Siddiqui 1992  | U.S.A.     | Not specified             | 0/7        | 0/6  | 0/9   |
| Saracco 1993   | Italy      | M+ F-                     | 3/171      | 8/55 | 8/79  |
| Musicco 1994   | Italy      | M+ F-                     | 5/243      | -    | -     |
| O'Brien 1994   | U.S.A.     | Not specified             | -          | 0/4  | 0/2   |
| Deschamps 1996 | Haiti      | Not specified             | 1/42       | 6/45 | 13/90 |
| Hira 1997      | Zambia     | M+ F-                     | 0/30       | 5/49 | -     |

\*seroconversion rates for never and sometimes condom users.

M+ F- indicates transmission from an infected man to a female partner; M- F+ indicates transmission from an infected woman to a male partner.

Source: Weller S et al., Pinkerton SD et al., Davis KR et al.

Figure 1. HIV incidence among men who have sex with men in San Francisco, 1978-88



\*The denominator is men beginning each year seronegative.

Source: Hessel N et al.

Table 1a. Condom use at last high-risk sex in past year among 15-24 year old females in Africa, 2001

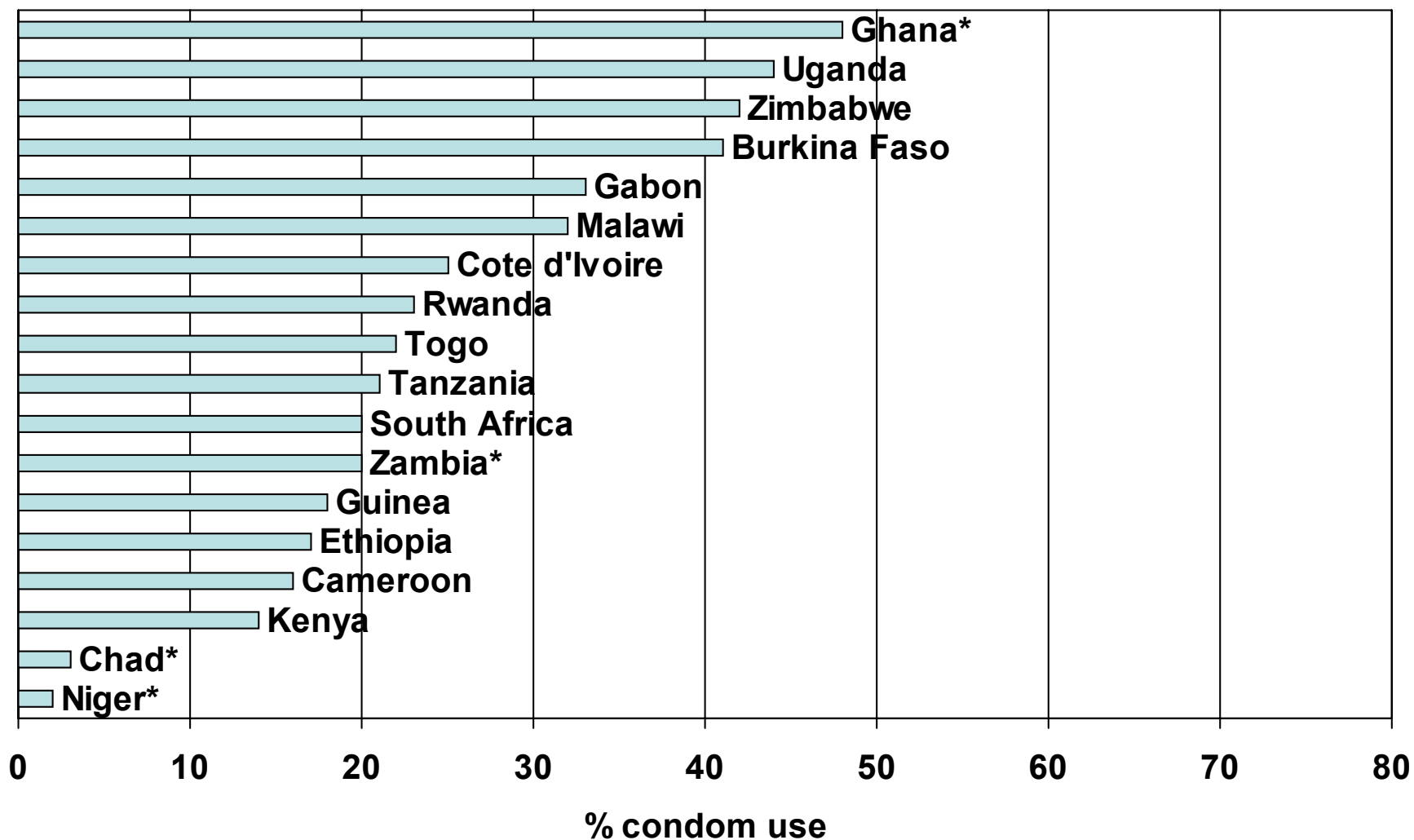
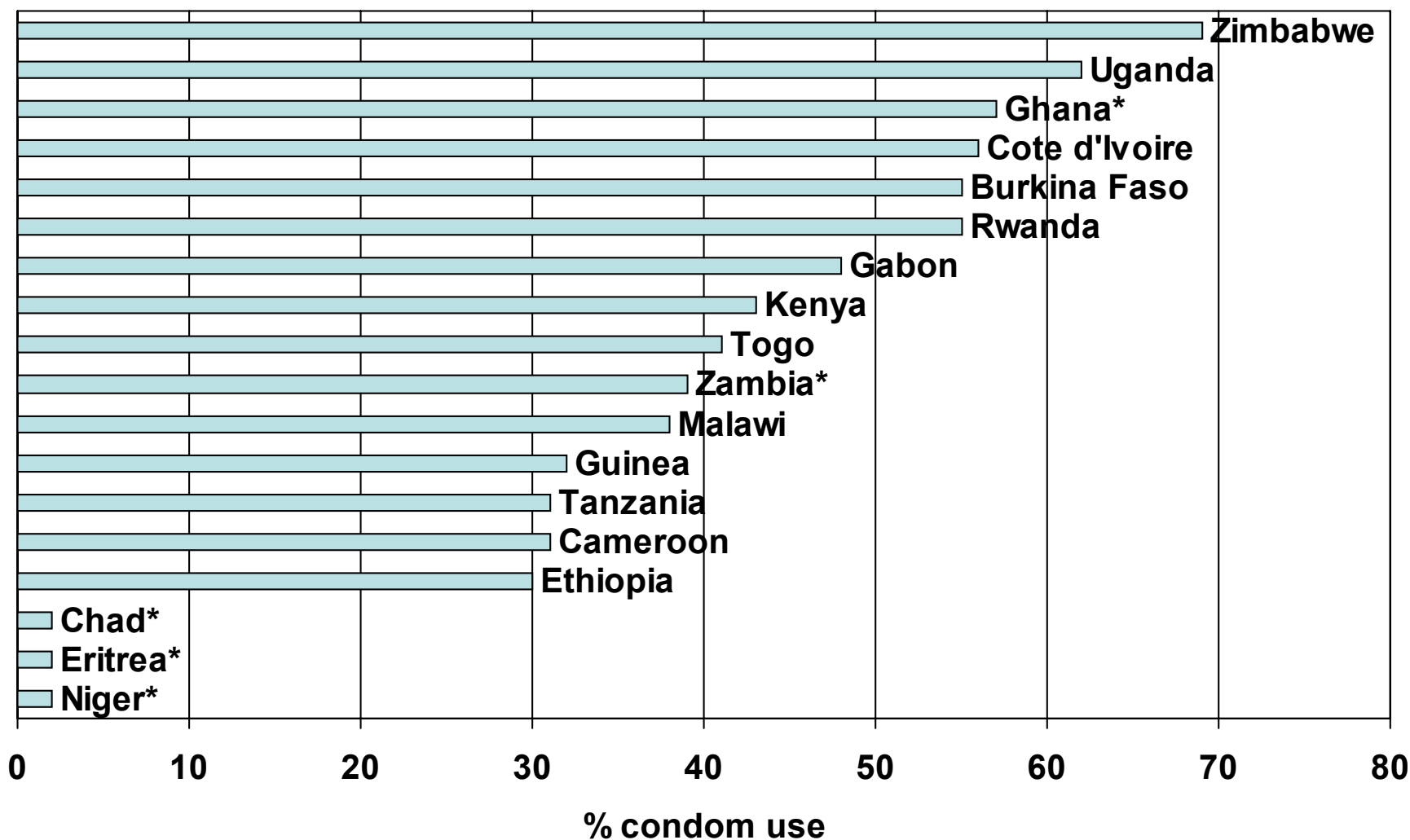
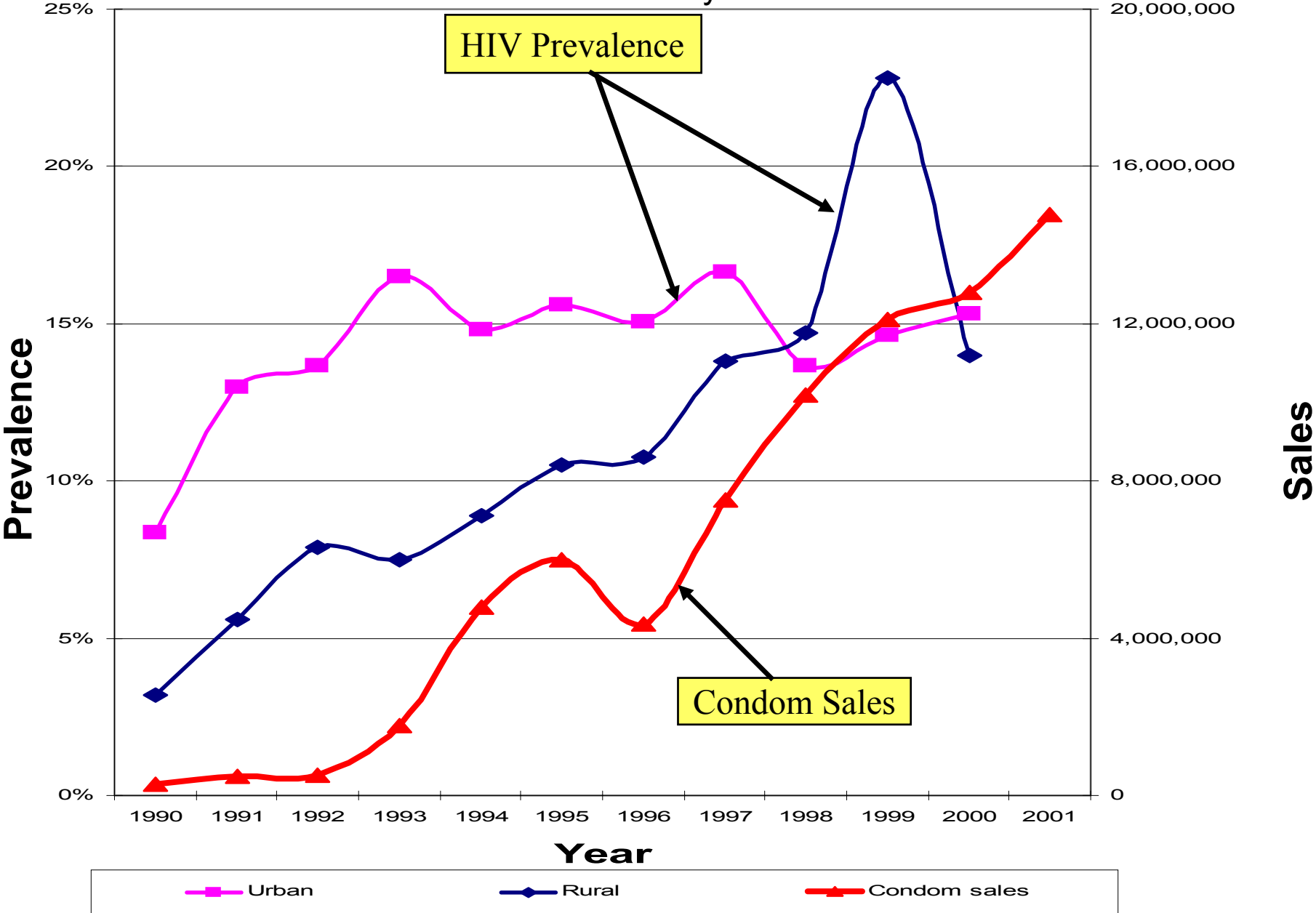


Table 1b. Condom use at last high-risk sex in past year among 15-24 year-old males in Africa, 2001

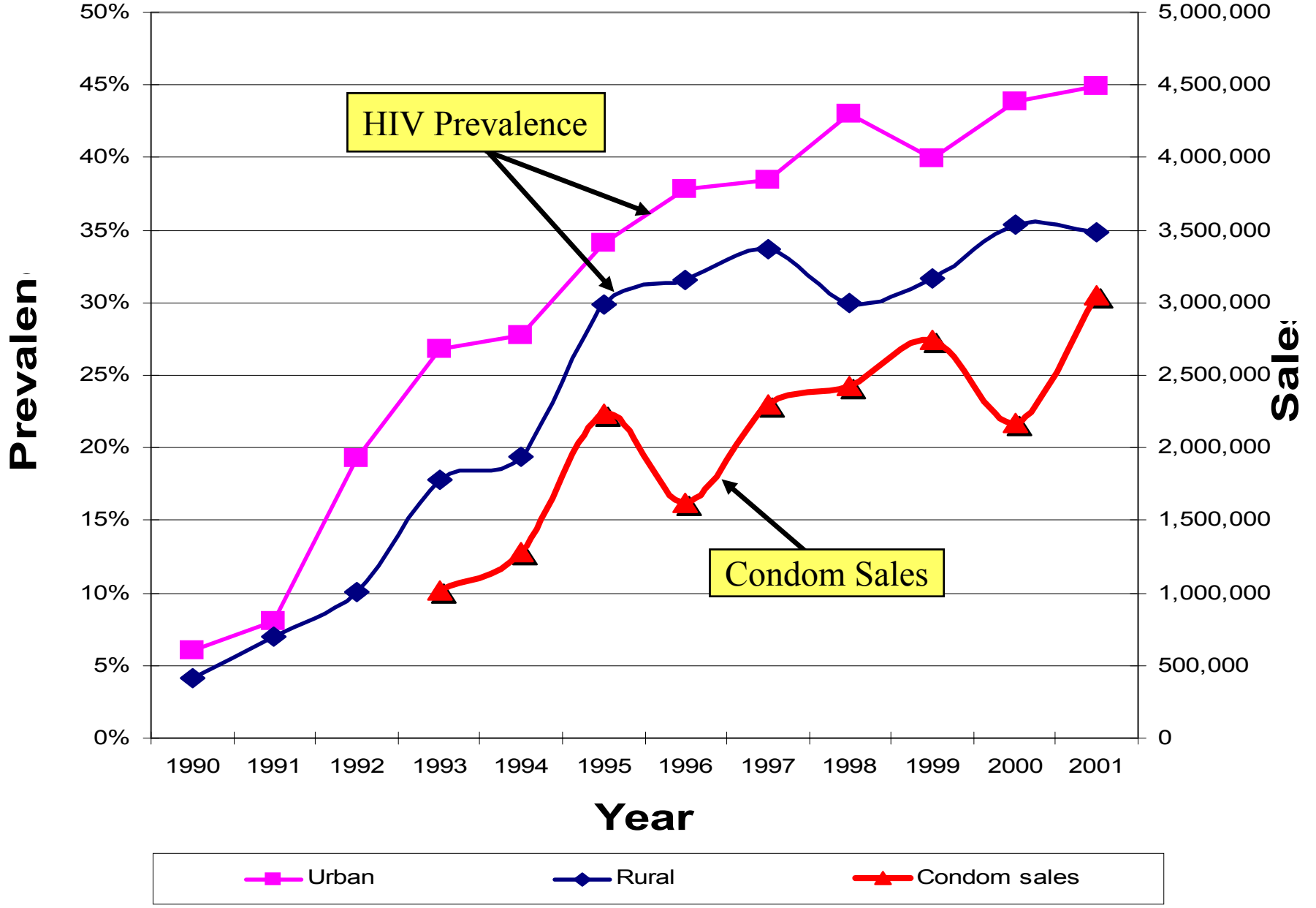


# Kenya



Source: PSI/ AIDSMARK

# Botswana





# Cameroon

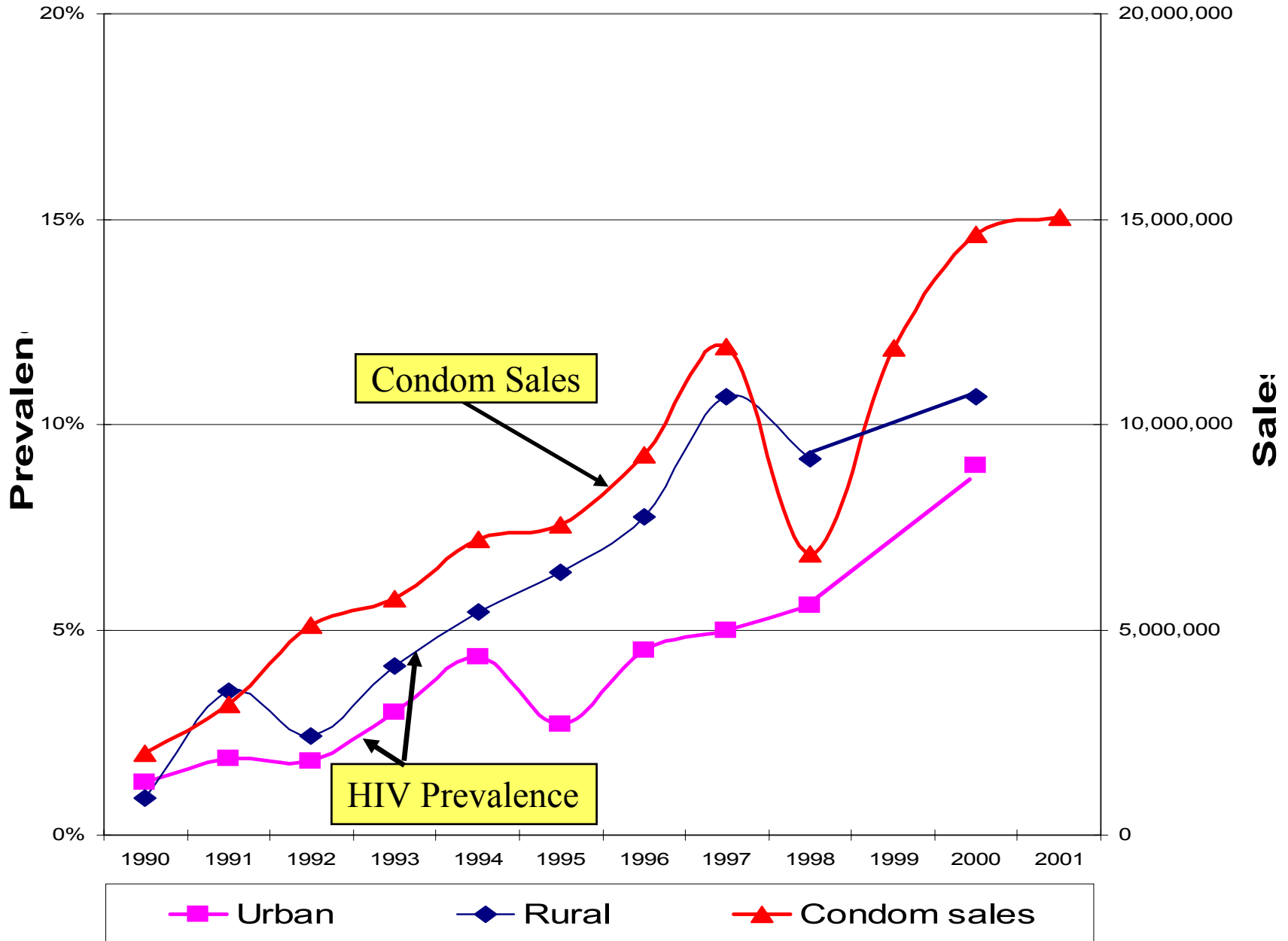


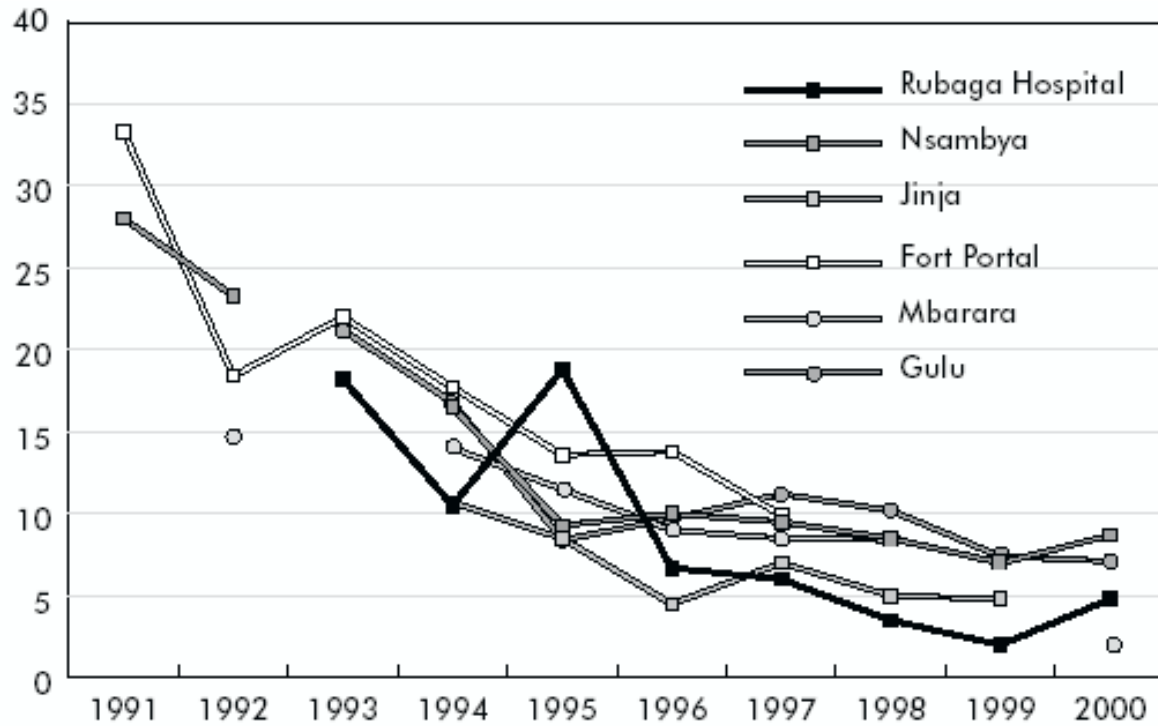
Figure 4. Male STIs and condom non-use in commercial sex in Thailand



Source: Brown T

Figure 5

## HIV PREVALENCE AMONG 15-19-YEAR-OLD PREGNANT WOMEN



Source: Ugandan Ministry of Health, 2001



How consistent must condom use be to protect the individual?

How high must rates of condom use be to protect the community?

Can a generalized HIV epidemic be overcome primarily through condoms?

How can condom promotion best be integrated into multifaceted prevention?

## Condom use in Uganda

### a) Coupon redemption

|              | No. participants | No. coupons       |
|--------------|------------------|-------------------|
| Control      | 90/165 (54.5%)   | 403/1875 (21.5%)  |
| Intervention | 128/218 (58.7%)  | 1472/1875 (78.5%) |

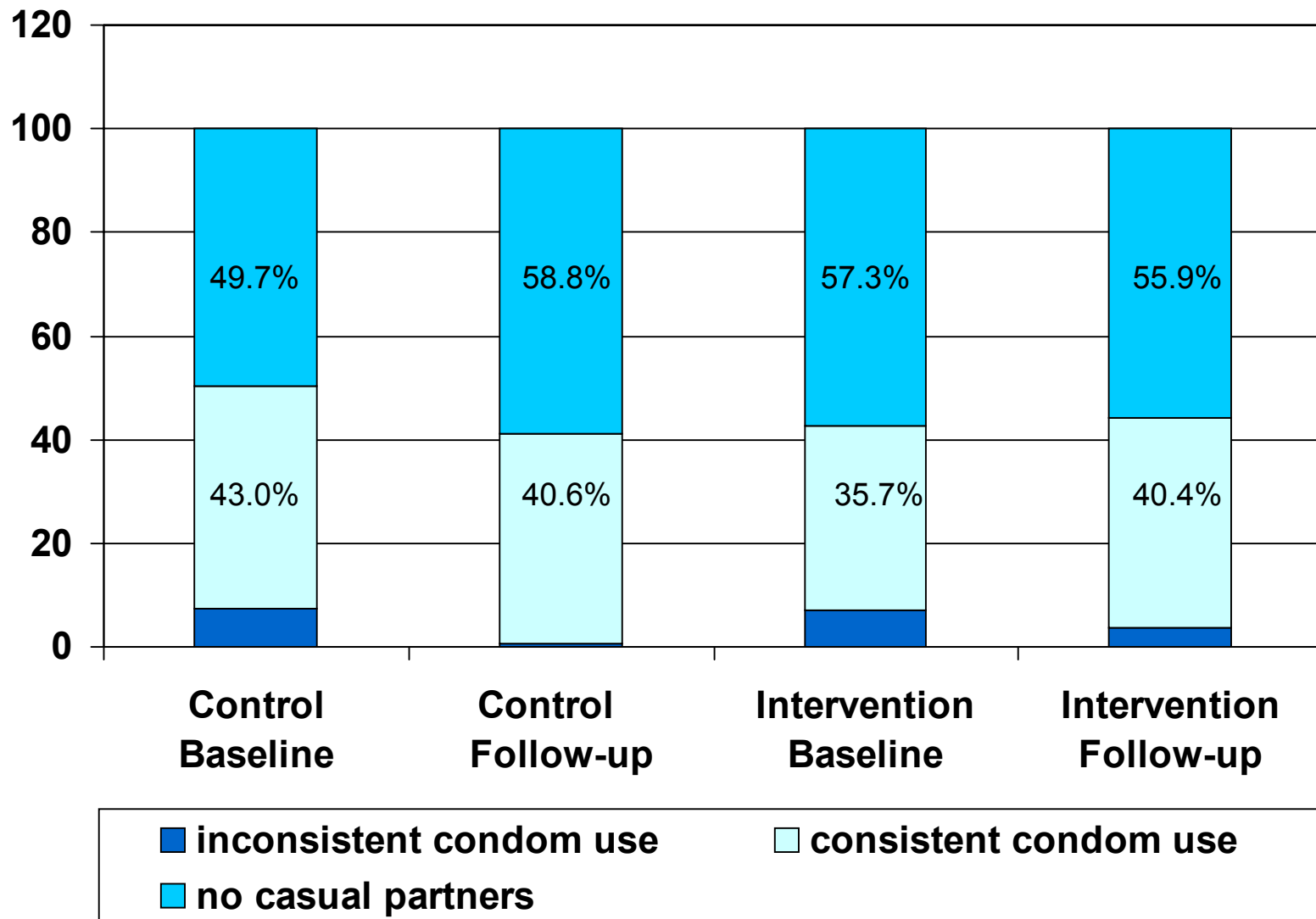
### b) Average coupons redeemed

|              | Mean | Median | Min | Max |
|--------------|------|--------|-----|-----|
| Control      | 6.76 | 6      | 1   | 30  |
| Intervention | 17.9 | 13     | 1   | 73  |

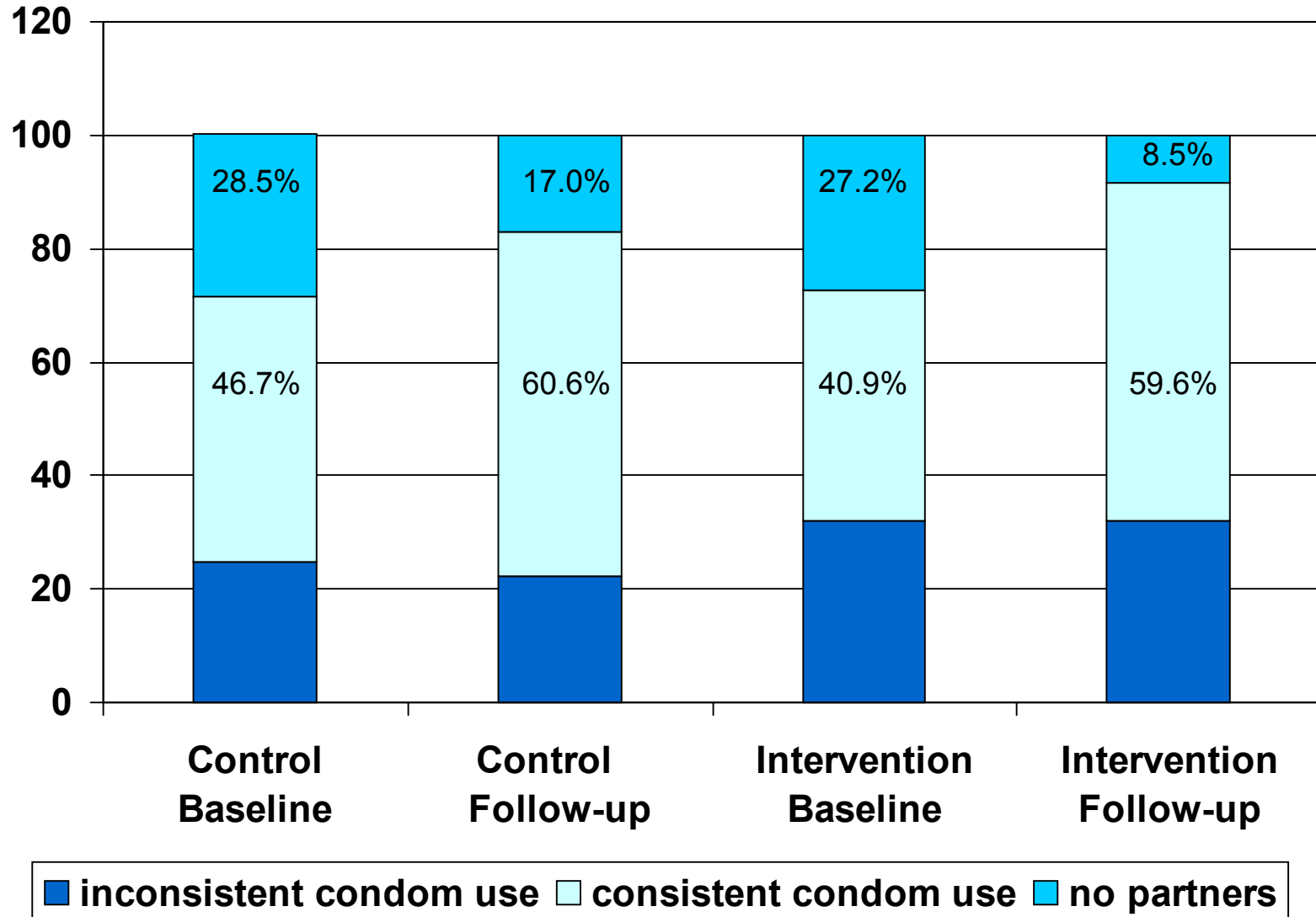
Ranksum No. coupons by group

$p < .0001$

# Uganda: Casual partners



# Uganda: Any partner





# Uganda: Steady partners

