



BARRIERS TO ACCESSING FREE CONDOMS AT PUBLIC HEALTH FACILITIES ACROSS SOUTH AFRICA

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Objectives. Lack of access to public sector condoms still presents a fundamental barrier to condom use in most of South Africa. This study investigated the determinants of condom procurement at public health facilities in order to inform improved public sector condom distribution and promotion strategies.

Design. Cross-sectional study.

Setting. Twelve health facilities in four health regions of South Africa: Boland/Overberg, Empangeni/Jozini, Kimberley, and Pretoria.

Subjects. Consecutive individuals procuring condoms and a sample of individuals not procuring condoms were interviewed on their recent sexual behaviour and condom-related knowledge and attitudes.

Outcome measures. Factors associated with condom procurement.

Results. Across all facilities, 554 individuals procuring condoms and a comparison group of 261 individuals not procuring condoms were interviewed. Eighty-three (33%) of those interviewed who were not procuring condoms stated that they would like to do so. Several potential barriers to condom procurement, including female gender and perceived risk of HIV, showed substantially different associations in different study regions. Only two factors, negative partner attitudes towards condoms and the use of other forms of contraception, were consistently associated with a decreased probability of condom procurement across all regions.

Conclusions. These results suggest that the barriers to condom procurement may vary considerably across South Africa. This heterogeneity suggests that national-level interventions to promote condom procurement and use may be less appropriate than specialised interventions addressing locally relevant factors, including those identified here.

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The number of male condoms purchased by the government for distribution to the South African public has grown from less than 10 million in 1994 to almost 200 million in 1999 as part of the Department of Health (DOH)'s response to the epidemics of HIV/AIDS and other sexually transmitted diseases (STDs).¹ Despite this increase, previous research from South Africa has demonstrated that lack of access to condoms continues to present a fundamental barrier to condom use.²⁻⁵ This study, sponsored by the National HIV/AIDS and STD Directorate, investigates the determinants of free condom procurement at public health facilities across the country to help inform improved public sector condom distribution and promotion strategies.

METHODS

As part of a national study of condom distribution and use,⁶ a cross-sectional study was undertaken during 1998 and 1999. A stratified-random sampling procedure was used to select four of South Africa's 52 demarcated health regions for research: Boland/Overberg (Western Cape), Kimberley (Northern Cape), Pretoria (Gauteng) and Empangeni/Jozini (KwaZulu-Natal). Within each of these regions, DOH officials were consulted to develop a list of major public sector condom distribution sites. From these lists, a total of 12 condom distribution points were randomly selected. These ranged from small rural clinics that distribute on average 500 condoms each month, to large urban and peri-urban clinics distributing as many as 10 000 condoms monthly.

In each region, up to 160 consecutive individuals who had procured condoms, and for comparison a random sample of up to 70 individuals who had not procured condoms, were approached to participate in the study. If they consented, a semi-structured questionnaire was used to collect demographic information, data on recent sexual behaviour, and condom-related knowledge and practices. All interviews took place in a private room at the health facilities, and were conducted in the participant's home language by trained fieldworkers.

Data were analysed using Stata (Stata Corporation, College Station, USA). Chi-square tests were used for comparing proportions, and Mann-Whitney U-tests were used to compare medians. Logistic regression analysis was used to determine the effect of the potential risk factors on the probability of procuring condoms; the resulting model excluded factors that had no relationship with condom procurement in any of the four regions. Study region appeared as an effect modifier for the association between condom procurement and several factors of interest, and in these instances the regression model was adjusted accordingly.

RESULTS

Across all four regions, 554 individuals procuring condoms and a comparison group of 261 individuals not procuring condoms were interviewed. Most of those not taking condoms



(89%, $N = 233$) knew that condoms were available from the facility, some (34%, $N = 89$) had seen condoms on the day of their visit to the site, but only 8% (22) said that they had been offered condoms. When specifically asked, 33% (85) of those not procuring condoms stated that they would have liked condoms. Compared with those not procuring condoms, individuals procuring condoms were significantly more likely to be male, to be sexually active, to report having had sexual intercourse in the previous week, and to report condom use at their last sexual contact. Meanwhile, individuals not procuring condoms were more likely to report using contraceptives other than condoms at their last sexual contact (Table I).

In the multivariate analysis (Table II), the following factors were associated with the probability of condom procurement:

1. **Gender.** Men were more likely than women to procure condoms in Kimberley, Pretoria and Empangeni/Jozini, but in the Boland/Overberg women were more than twice as likely as men (although this did not reach statistical significance).

2. **Perceived risk of HIV.** While individuals who perceived themselves to be at risk of HIV were more likely to procure condoms in Pretoria, Kimberley and in the Boland/Overberg (although the latter two did not reach statistical significance), the association was reversed in Empangeni/Jozini, with individuals who did not perceive themselves to be at risk of HIV significantly more likely to procure condoms.

3. **Frequency of sexual intercourse.** Individuals who reported having had sexual intercourse in the previous week were more likely to procure condoms in the Boland/Overberg and Empangeni/Jozini.

4. **Partner attitudes towards condoms.** Across all regions, individuals whose partners had negative attitudes towards condom use were less likely to procure condoms.

5. **Use of other contraceptives.** Across all regions, individuals who reported use of contraceptives at their last sexual event were significantly less likely to procure condoms than those who did not use other contraceptives.

DISCUSSION

These results suggest that many barriers to condom procurement are likely to vary substantially in their effect across South Africa; although some of the smaller variations may be because of varying regional sample sizes and hence varying degrees of statistical power, there are very strong differences between regions with regard to at least three of the barriers. Female gender was inversely associated with condom procurement in three regions, a finding that may be expected in light of the well-documented problems women face in negotiating condom use.^{7,8} However, an exception to this occurred in the Boland/Overberg, where women were more likely to procure condoms. Similarly, self-perceived risk of HIV infection was associated with an increased likelihood of condom procurement in two regions; the exception to this, in Empangeni/Jozini, shows that individuals who recognise the risk of HIV infection may be less likely to procure condoms — a finding of some concern.⁹ The number of sexual partners and recent condom-use behaviours were also positively associated with condom procurement, except in Empangeni/Jozini.

Table I. Description of condom procurers and non-procurers, for all regions combined*

	Condom procurers ($N = 554$)	Non-procurers ($N = 261$)	P-value [†]
Number of participants interviewed			
Boland/Overberg	79	57	
Empangeni/Jozini	164	69	N/A
Pretoria Metro	162	68	
Kimberley	149	67	
Age (yrs)			
Median	24	24	0.60
Range	13 - 63	12 - 59	0.60
Male gender (N (%))	318 (57)	98 (38)	< 0.01
Education			
Median yrs of schooling	10	10	0.78
At least 10 years schooling (N (%))	339 (61)	157 (60)	0.78
At interview, N (%) reporting			
Ever having had sexual intercourse	545 (98)	239 (92)	< 0.01
Sexual intercourse during previous week [‡]	361 (66)	124 (52)	< 0.01
Using a condom at last intercourse [‡]	280 (51)	74 (31)	< 0.01
Use of other contraceptives at last intercourse [‡]	189 (35)	123 (52)	< 0.01
More than one sex partner in last month [‡]	126 (23)	27 (11)	< 0.01

* These results do not take into account regional variations or interactions among the risk factors, both of which were included in the multivariate logistic model.

[†] P-values were not calculated for numbers of participants, as these data are presented for descriptive purposes only. All P-values were calculated using Pearson's chi-square tests, with the exception of the comparison of medians (for age and education) where Mann-Whitney U-tests were used.

[‡] Only those who reported ever having had sexual intercourse are included here.

N/A = not applicable.

**Table II. Results of logistical regression to identify factors associated with condom procurement by individuals attending public health facilities**

Risk factor	OR	95% CI
Gender (female = 1, male = 0)		
Boland/Overberg	2.11	0.95 - 4.74
Empangeni/Jozini	0.52	0.28 - 0.99
Pretoria Metro	0.27	0.12 - 0.59
Kimberley	0.44	0.21 - 0.94
Perceived risk of HIV/AIDS or STDs (yes = 1, no/ don't know = 0)		
Boland/Overberg	1.15	0.52 - 2.59
Empangeni/Jozini	0.39	0.17 - 0.90
Pretoria Metro	2.08	1.01 - 4.28
Kimberley	1.91	0.93 - 3.94
Number of sexual partners in past month (more than one = 1, one only = 0)		
	1.55	0.90 - 2.67
Condom use at last sexual event (yes = 1, no/don't know = 0)		
Boland/Overberg	3.17	1.27 - 7.92
Empangeni/Jozini	0.61	0.31 - 1.19
Pretoria Metro	2.54	1.23 - 5.25
Kimberley	2.29	1.08 - 4.83
Sexual intercourse in previous week (yes = 1, no = 0)		
Boland/Overberg	2.37	1.02 - 5.51
Empangeni/Jozini	3.73	1.97 - 7.08
Pretoria Metro	1.57	0.76 - 3.23
Kimberley	0.93	0.52 - 2.23
Partners' attitudes towards condom use (negative = 1, positive/ ambivalent = 0)		
	0.37	0.23 - 0.58
Use of other contraceptives at last sexual event (yes = 1, no/ don't know = 0)		
	0.61	0.42 - 0.86
Number of sexual partners in past month (more than one = 1, one only = 0)		
	1.55	0.90 - 2.67

OR = odds ratio; CI = confidence interval.

Although most of the barriers documented here varied across regions, two factors appeared to be consistently associated with the decreased likelihood of condom procurement. First, individuals whose partners had negative attitudes were significantly less likely to procure condoms compared with individuals whose partners had positive or ambivalent attitudes, confirming previous findings that partners play a key role in determining condom-use behaviours.^{10,11} Second, the use of other contraceptives (primarily injectable contraceptives) was inversely related to condom procurement. This finding suggests that condom use may be unlikely to coincide with the use of hormonal contraceptives, and emphasises the importance of promoting dual method use (combined condom and contraceptive use) among women attending family planning clinics as well as their partners.^{12,13}

Of those interviewed who were not procuring condoms, one-third stated that they would have liked to procure condoms from participating health facilities. This finding suggests that local health services can do more to tailor their approaches to condom distribution to ensure that condoms are accessible to all those who would like — and need — them.

What can be done to improve condom distribution through the public sector in South Africa? These results provide new insights into the diverse range of factors that shape the procurement of condoms, and therefore present fundamental hurdles to increased condom use. This heterogeneity suggests that national-level interventions to promote condom procurement and use may be less appropriate than localised interventions addressing locally relevant factors, including those identified here. In light of this, the potential for locally developed condom distribution and promotion activities deserves greater attention.

Finally, this study focuses on condom distribution based at health care facilities, which are the single largest source of condoms in South Africa. However, a number of populations may find accessing condoms at health facilities particularly difficult, including adolescents, and additional research is required to develop public sector condom distribution strategies that address these vulnerable groups.

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