

Reduction of risk behavior among MSM in Senegal after targeted prevention interventions • ELIHoS project ANRS 12139

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Background

In Senegal, an epidemiological survey conducted in 2004 among 463 men having sex with men (MSM) revealed a high HIV prevalence (21.5%) and high proportions of unprotected sex and bisexual activity (Wade, 2005). The health authorities concluded that not giving MSM access to health care could compromise all the efforts achieved in Senegal in combating HIV.

Consecutively, interventions targeting MSM were developed. At the beginning of 2005 we identified three on-going interventions targeting MSM in Senegal: an access to health care program for STIs and for HIV, a campaign to raise awareness on sexual risk and an appeal in defence of MSM targeting decision makers.

A second survey carried out in 2007 measured the evolution of HIV and STIs prevalence among MSM and assessed the impact of these preventive operations.



Senegal

Sociodemographic characteristics

in %	2004 n=441	2007 n=501	in %	2004 n=441	2007 n=501
Site ####			Occupation ####		
• Dakar	67.3	61.1	• None	10.2	5.6
• Saint-Louis	10.2	19.0	• Student	14.5	25.9
• Mbour/Thiès	22.4	20.0	• Trade	17.5	19.4
Age groups			• Employee	3.6	3.8
• 18-19	19.3	19.4	• Hairdresser, beautician or artist	8.8	5.0
• 20-24	34.0	38.7	• Waiter, bartender or in tourism	6.1	6.6
• 25-29	29.0	22.2	• Tailor	11.8	10.5
• 30-34	13.4	13.4	• Manual worker or driver	27.4	23.2
• 35 and more	4.3	6.4	Ever participated in a prevention program for MSM ****	22.7	58.7
Education			Member of a MSM's NGO ****	11.1	40.9
• Never been to school	17.5	14.0	In couple †		
• Primary	39.7	38.9	• No	-	74.9
• Secondary	38.3	40.1	• With a man	-	18.6
• Higher	4.5		• With a woman	-	6.6
Lives with his family †					
		89.8			

† Question not asked in 2004.
 Comparison 2004-2007: Chi² test : # p<0.10; ## p<0.05; ### p<0.01; #### p<0.001 - Taillard test : * p<0.10; ** p<0.05; *** p<0.01; **** p<0.001

Methods

The study was carried out at three sites: Dakar, the capital city, Mbour/Thiès, a seaside tourist area, and Saint-Louis, a medium-sized town in the northern part of the country. It included both a quantitative and a qualitative component.

The quantitative part has focused on collecting sociodemographic, behavioral and biomedical data, based on a face-to-face close-ended standardized questionnaire submitted to 501 MSM recruited through the *snowball* referral method. Participants were offered to undergo a clinical examination and to provide blood and urine samples to be tested for STIs and HIV. The biological and behavioral indicators were compared to those collected during the 2004 survey.

Results

The HIV prevalence among MSM remained globally stable, but it decreased among the youngest. Prevalence of other STIs (HSV2, Syphilis, Gonorrhoea, Chlamydia) decreased.

Frequencies of various sexual practices didn't change between 2004 and 2007, but systematic condom use increased significantly irrespect of the practice and the sex of the partner.

HIV and STI prevalence

STI	2004			2007			p-value (Taillard test)
	%	(n/N)	95% CI	%	(n/N)	95% CI	
HIV	22.4	(94/420)	18.6-26.8	21.8	(109/500)	18.3-25.7	0.214
- among 18-20 years	9.1	(11/121)	4.9-16.1	7.0	(11/158)	3.7-12.5	0.144
- among 21-23 years	28.4	(21/74)	18.8-40.2	19.7	(23/117)	13.1-28.3	0.039
HSV2	23.3	(95/407)	19.3-27.8	20.6	(103/500)	17.2-24.5	0.067
Syphilis	5.0	(21/420)	3.2-7.7	3.4	(17/500)	2.1-5.5	0.053
Gonococque	5.5	(23/420)	3.6-8.3	2.6	(13/500)	1.5-4.5	0.005
Chlamydia	4.0	(17/420)	2.4-6.5	3.2	(16/500)	1.9-5.3	0.129

95% CI: confidence interval at 95% (Wilson score with continuity correction). Undetermined results excluded.

Last month sexual practices

Last month sexual practices	Year	frequency			with systematic condom use		
		%	(n/N)	p-value	%	(n/N)	p-value
With a man							
insertive anal sex	2004	60.6	(180/397)	0.0102	42.8	(77/180)	<0.0001
	2007	39.1	(196/501)		77.6	(152/196)	
receptive anal sex	2004	37.5	(149/197)	0.1242	41.6	(62/149)	<0.0001
	2007	39.5	(198/501)		75.3	(148/198)	
oral sex	2004	42.3	(168/397)	0.0767	8.9	(15/168)	0.0460
	2007	39.3	(197/501)		13.2	(26/197)	
commercial sex (received money)	2004	23.4	(93/397)	0.0586	34.4	(32/93)	<0.0001
	2007	26.5	(133/501)		72.2	(96/133)	
commercial sex (gave money)	2004	5.3	(21/397)	0.2736	28.6	(6/21)	<0.0001
	2007	5.2	(26/501)		84.6	(22/26)	
With a woman							
vaginal sex	2004	32.7	(130/397)	0.0967	45.4	(59/130)	0.0013
	2007	30.3	(152/501)		61.2	(93/152)	
commercial sex (received money)	2004	2.8	(11/397)	0.0058	27.3	(3/11)	0.0544
	2007	0.8	(4/501)		75.0	(3/4)	
commercial sex (gave money)	2004	3.5	(14/397)	0.1668	50.0	(7/14)	0.1635
	2007	4.2	(21/501)		61.9	(13/21)	

p-value: Taillard test of comparison 2004-2007.

Conclusion

Prevention interventions targeted towards men having sex with men led to a reduction of risk behaviours in this group, showing their efficiency. Nevertheless, HIV remains high (22% versus 1% in the general population). Prevention efforts and access to care must be reinforced in this high-risk group.