

7. Downer SR, Meara JG, Da Costa AC, Sethuraman K. SMS text messaging improves outpatient attendance. *Aust Health Rev.* 2006;30:389–396.
8. Franklin VL, Greene A, Waller A, Greene SA, Pagliari P. Patients' engagement with "Sweet Talk" – a text messaging support system for young people with diabetes. *J Med Internet Res.* 2008;10(2):e20.
9. Rodgers A, Corbett T, Bramley D, et al. u smoke after txt? Results of a randomised trial of smoking cessation using mobile phone text messaging. *Tob Control.* 2005;14:255–261.
10. Obermayer JL, Riley WT, Asif O, Jean-Mary J. College smoking-cessation using cell phone text messaging. *J Am Coll Health.* 2004;53(2):71–78.

The NYC Condom: Use and Acceptability of New York City's Branded Condom

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We assessed awareness and experience with the NYC Condom via surveys at 7 public events targeting priority condom distribution populations during 2007. Most respondents (76%) were aware of NYC Condoms. Of those that had obtained them, 69% had used them. Most (80%) wanted alternative condoms offered for free: 22% wanted ultra-thin, 18% extra-strength, and 14% larger-size. Six months after the NYC Condom launch, we found high levels of awareness and use. Because many wanted alternative condoms, the Department of Health and Mental Hygiene began distributing the 3 most-requested alternatives. (*Am J Public Health.* 2009;99:2178–2180. doi:10.2105/AJPH.2008.152298)

On February 14, 2007, via a high-profile media campaign, the New York City Department of Health and Mental Hygiene (DOHMH) introduced the NYC Condom. The NYC Condom, the first specially packaged condom unique to a municipality ([http://](http://www.nyc.gov/condoms)

www.nyc.gov/condoms), is a lubricated, standard-size, Lifestyles (Ansell Healthcare, Red Bank, NJ) brand male condom. The month following the launch, DOHMH distributed 5 million NYC Condoms to city organizations and businesses. Subsequently, average monthly distribution stabilized at 3.4 million condoms.

The program began receiving anecdotal reports from organizations that the public wanted DOHMH to also distribute larger-size condoms for free. To inform programmatic decision-making, we conducted a survey of sexually active New Yorkers to measure awareness of and experience with the NYC Condom, and demand for and experience with other male condoms.

METHODS

We conducted a street intercept survey during July through September 2007 at 7

large public events in New York City, where attendees largely consisted of people of color and gay persons (e.g., Gay Pride Events, African American Day Parade), to target groups with higher HIV prevalence. New York City residents aged 18 years and older were eligible to participate. For systematic recruiting, we used a time-space sampling methodology.¹ We identified a designated intercept line at each event, and assigned each person crossing the line an interviewer. The anonymous in-person questionnaires were administered onsite via handheld-assisted personal interview Pocket PCs (Hewlett-Packard Development Company, LP, Palo Alto, CA) and respondents were offered \$4 transit card incentives.

We obtained NYC Condom awareness with the following question: "In the past 12 months, have you seen or heard about condoms in

TABLE 1—Characteristics of Survey Respondents and NYC Condom Awareness and Use by Demographic Category: New York City Residents Aged 18 Years and Older, 2007

Demographic	No. (%)	% Who Had Seen or Heard About NYC Condoms in Past 12 Mo	% Reporting NYC Condom Use ^a
Gender			
Men	201 (69.6)	83.1	57.5
Women	88 (30.4)	59.1	37.3
Race/ethnicity			
White	45 (15.4)	77.8	34.3
Black	139 (47.6)	69.8	50.5
Hispanic	85 (29.1)	82.4	62.3
Other	23 (7.9)	87.0	65.0
Sexual behavior in past 12 mo			
Women reporting sexual intercourse with men only	88 (30.4)	59.1	37.3
Men reporting sexual intercourse with women only	116 (40.1)	77.6	46.7
Men reporting sexual intercourse with men only	85 (29.4)	90.6	70.1
Total no. of sexual partners in past 12 mo			
1	150 (51.2)	68.0	35.6
2	44 (15.0)	79.5	71.4
3 or more	99 (33.8)	86.9	65.1
Education			
High school graduate or less	94 (32.1)	73.4	64.7
Some college	77 (26.3)	74.0	64.2
College graduate or more	122 (41.6)	79.5	38.1
Employment			
Employed for wages or salary or self-employed	244 (83.3)	76.6	52.2
Not employed	49 (16.7)	73.5	55.6

Note. NYC = New York City.
^aLimited to respondents that had picked up an NYC Condom.

a black package with NYC Condom written on it in colorful letters?” We obtained NYC Condom use with the following question: “Have you used that condom in the black package with NYC Condom written on it? By used I mean have you or any of your partners ever used this condom when having sex together.”

To ascertain information on the respondents’ desire for an alternative condom, we asked: “Condoms come in a variety of types, like color, feel or touch, brand, and size. If the Health Department were to provide another type of male condom for free, what type of condom would be your top choice?” This was an open-ended question that was subsequently categorized during data analysis. Respondents were asked to compare the NYC Condom to other male condoms on a scale of 1 to 10 with 1 = NYC Condoms are much worse than other male condoms and 10 = they are much better than other male condoms. The current analysis includes respondents who reported sexual activity in the past 12 months, excluding women who reported sexual activity with only women.

RESULTS

We approached 933 people; 464 (50%) answered screening questions, 389 were eligible (aged 18 years or older and a New York City resident by self-report), and 361 completed the questionnaire and had a New York City zip code (93% participation rate). We excluded 19 women who reported sexual activity with only women and 49 respondents who were not sexually active in the past 12 months for a final sample of 293 (81% of participants). Most respondents were Black or Hispanic, and 29% were men reporting sexual activity with 1 or more men in the past year (Table 1).

Six months after the NYC Condom launch, we found high levels of NYC Condom awareness. Most participants (76%) had seen or heard of NYC Condoms, of which 75% had picked up an NYC Condom (Table 2). NYC Condom use was 68.5% among those that had picked one up, 52.7% among all those that had seen or heard of NYC Condoms, and 40.1% among all respondents.

TABLE 2—Awareness and Experience With NYC Condoms Among Survey Respondents: New York City Residents Aged 18 Years and Older, 2007

Question	No. ^a	% (95% CI) ^b or %
Seen or heard about NYC Condoms in past 12 mo	223	76.1 (71.2, 81.0)
Picked up NYC Condom (n = 221)	165	74.7 (68.9, 80.3)
Where respondent picked up NYC Condom (n = 165 ^c)		
Community or social service agency	66	40.0
Bar or nightclub, restaurant, or retail store	54	32.7
DOHMH STD clinic	12	7.3
Hospital or other health clinic	9	5.5
Street	7	4.2
Subway or train station	6	3.6
Barber shop or salon	5	3.0
Other	17	10.3
Used NYC Condom		
Among all respondents (n = 292)	117	40.1 (34.5, 45.7)
Among respondents that had seen or heard of NYC Condoms (n = 222)	117	52.7 (46.1, 59.3)
Among respondents that had picked up an NYC Condom (n = 165)	113	68.5 (61.4, 75.6)
Rated experience with NYC Condom, ^d mean (SD)	116	6.55 (2.42)
Other condoms respondent would like DOHMH to distribute		
Ultra-thin/extra-sensitive	65	22.3
Extra-strength	53	18.2
Larger-size	42	14.4
Studded or ribbed	17	5.8
Flavored	14	4.8
Colored	10	3.4
Other brand (e.g., Trojan, Durex)	10	3.4
Other type	23	7.9
No other condom chosen	58	19.9

Notes. DOHMH = Department of Health and Mental Hygiene; NYC = New York City; STD = sexually transmitted disease; CI = confidence interval.
^aExcept where noted, n = 293.
^bConfidence intervals were calculated for key outcome measures only.
^cNot mutually exclusive.
^dNYC Condom ranked on scale of 1 to 10 compared with other male condoms (1 = much worse than other male condoms; 10 = much better than other male condoms). Mean (SD) rather than % was measured.

On the scale of 1 to 10 (1 = NYC Condoms are much worse than other male condoms and 10 = they are much better), the average rating was 6.55. When asked what condom type DOHMH should offer for free besides the NYC Condom, only 20% did not want any other condom distributed. The most common condom types named were ultra-thin/extra-sensitive (22%), extra-strength (18%), and larger-size (14%). Most who named ultra-thin/extra-sensitive condoms selected them because they “felt better” (81.5%). Most respondents named

extra-strength condoms because they felt they provided better protection against HIV and other sexually transmitted diseases (84.9%). Top reasons for naming larger-size condoms were that they felt better (33.3%), were more comfortable (31.0%), or standard-sized condoms were too small (14.3%).

DISCUSSION

We found high levels of NYC Condom awareness, and awareness translated into use,

as 68% of respondents who had picked up NYC Condoms had used them. These results indicate that condom social marketing campaigns can successfully translate into condom use. Despite high levels of use and satisfaction, demand exists for alternatives to NYC Condoms.

Although this is the first large-scale condom distribution campaign conducted in a US city, other campaigns have documented that distributing free condoms promotes use. Louisiana's condom distribution campaign found that women with more than 1 sexual partner were significantly more likely to report condom use after the free condom program's introduction.² Further, after initiating a \$0.25 charge, condom use at most recent sexual intercourse dropped from 77% to 64% statewide,³ indicating that cost is a barrier to condom use. In a campaign in Cameroon, 21% of youths had obtained free condoms, and 52% of the male youths who had obtained them had used them.⁴

Currently, little is known about condom preferences and satisfaction with free condoms. Respondents were satisfied with NYC Condoms, rating them higher on average than other male condoms, but also expressed interest in alternatives. Study respondents requested alternative condoms because they perceived that alternate condoms felt better, were more comfortable, provided better protection from HIV and other sexually transmitted diseases, or fit better. We believe perceived needs should be considered when designing condom distribution programs, as meeting perceived needs may increase use.

One study limitation is that because we systematically chose attendees aged 18 years and older at public events targeting populations at elevated HIV risk, our results are not generalizable to all New Yorkers. Additionally, selection bias is a concern in this voluntary survey where 50% of people selected during recruitment refused to be screened for eligibility.

Data on use, acceptability, and preferences for various condom types can guide program planning and development. On the basis of these results, DOHMH began distributing alternative condoms in November 2008, including this study's most frequently

named types—ultra-thin/extra-sensitive, extra-strength, and larger-size. ■

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Contributors

R. C. Burke led the study, conducted statistical analysis, and led writing. J. Wilson contributed to the study design, helped coordinate the study, and coordinated the NYC Condom program. K. T. Bernstein developed the study design and contributed to the statistical analysis and writing. N. Grosskopf contributed to study implementation and survey instrument development. C. Murrill provided guidance for the development of the survey instrument and study design. B. Cutler contributed to the writing and provided guidance to the NYC Condom program. M. Sweeney contributed to the study design and writing. E. M. Begier oversaw and contributed to all aspects of the study and writing. All authors reviewed drafts of the article.

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Human Participant Protection

This study was approved by the New York City Department of Health and Mental Hygiene institutional review board.

References

1. MacKellar DA, Gallagher KM, Finlayson T, et al. Surveillance of HIV risk and prevention behaviors of men who have sex with men—a national application of venue-based, time-space sampling. *Public Health Rep.* 2007;122(S1):39–47.
2. Cohen DA, Farley TA, Bedimo-Etame JR, et al. Implementation of condom social marketing in Louisiana, 1993 to 1996. *Am J Public Health.* 1999;89:204–208.
3. Cohen D, Scribner R, Bedimo R, et al. Cost as a barrier to condom use: the evidence for condom subsidies in the United States. *Am J Public Health.* 1999;89:567–568.
4. Meekers D. *The Implications of Free and Commercial Distribution For Condom Use: Evidence From Cameroon.* Washington, DC: Population Services International; 1997. Working paper 9.

School-Based Condom Education and Its Relations With Diagnoses of and Testing for Sexually Transmitted Infections Among Men in the United States

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An intense social and political debate continues in the United States regarding sexuality education. Included in the debate are those who favor comprehensive approaches, those who favor abstinence-only approaches, and those who favor no sexuality education. In this study, we showed that men who received school-based condom education were less likely to have been diagnosed with sexually transmitted infections (STIs) and were more likely to ever have been tested for sexually transmitted infections than were men without such education. School-based condom education is associated with less, rather than more, STI risk. (*Am J Public Health.* 2009;99:2180–2182. doi:10.2105/AJPH.2008.159038)

Despite rising rates of sexually transmitted infections (STIs) and unintended pregnancy, school-based sexuality education remains controversial in the United States relative to other industrialized nations.^{1,2} Large, national studies have shown that most parents in the United States favor sexuality education approaches in schools that provide scientifically and medically accurate information on sexual health issues, including condom use; still, a minority of opponents have claimed that discussing condom use in and of itself will increase risky sexual behaviors.³ Several studies have documented the long-term positive effects of school-based