Oral Sex and Condom Use Among Young People In the United Kingdom

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CONTEXT: The development of UK national targets to reduce the transmission of HIV and other STDs has focused health promotion efforts on advocating the use of condoms during penetrative vaginal and anal sex. However, other behaviors that can facilitate STD transmission—such as oral sex and, in particular, fellatio—have received limited attention.

METHODS: Between 2003 and 2005, a sample of 1,373 full- and part-time students, primarily aged 16–18, completed questionnaires about their knowledge, attitudes and experiences related to sexual behavior and health. Chi-square tests were used to assess differences by sexual experience and gender. Supplementary data were obtained from sexual event diaries completed by 108 young people.

RESULTS: Fifty-six percent of survey respondents had experienced fellatio or cunnilingus, including 22% of those who had not yet engaged in penetrative intercourse. Of young people who had had vaginal intercourse, 70% had previously had oral sex. Among those who had experienced fellatio once, 17% had used a condom, but only 2% of respondents who had engaged in fellatio more than once reported consistent use. Reduced pleasure and lack of motivation, desire and forethought were reasons given for not using condoms during fellatio; hygiene, avoidance of the dilemma of whether to spit or swallow ejaculate, and taste were commonly cited as triggers for use.

CONCLUSION: Greater efforts are needed to publicize the risk of exposure to STDs that many young people face because of unprotected noncoital sexual activities before, as well as after, they enter into relationships involving intercourse.

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Much research into young people's sexual behavior in the United Kingdom has focused on describing levels of prevalence of, and understanding the factors associated with, early sexual activity and contraceptive use, including condom use. Indeed, young people's sexual behavior has been closely monitored since the publication in 1999 of the Social Exclusion Unit's report *Teenage Pregnancy*, which established the target of halving the 1998 rate of conceptions among women aged 15–17 by 2010.¹

In 2001, partly in response to huge increases in new gonorrhea and chlamydia diagnoses since 1995,² the English National Sexual Health and HIV Strategy was launched; this plan proposed substantial changes in the delivery of sexual health services and set targets for reductions in new cases of HIV and other STDs.³ Obviously, ongoing research into young people's sexual behavior and condom use is highly relevant to this effort; however, protective practices during penetrative vaginal and anal intercourse should not be the sole focus, given extensive reports documenting oral transmission of both viral and nonviral STDs.⁴ (Human papillomavirus, herpes simplex virus, hepatitis B, gonorrhea, syphilis, chlamydia and chancroid can be transmitted orally, although authoritative data on the probabilities of oral transmission are lacking.)

Furthermore, various studies have indicated that the prevalence of oral sex is increasing. For example, using accounts from 4,089 women attending genitourinary med-

ical clinics in London, Evans and colleagues found that the prevalence of fellatio increased from 70% to 82% between 1982 and 1992, while that of fellatio with ejaculation increased from 37% to 51%.⁵ Findings from the two UK National Surveys of Sexual Attitudes and Lifestyles (NATSAL) have shown that the practice of oral sex is common in both heterosexual and homosexual partnerships.⁶ In the first NATSAL (conducted in 1990), 70% of men and 65% of women aged 16–44 reported oral-genital contact with a partner of the opposite sex during the previous 12 months; in the second NATSAL (carried out in 2000), the proportions were 78% and 77%, respectively.⁷

The practice of oral sex is also highly prevalent among young people, regardless of whether they have previously engaged in penetrative intercourse. For instance, more than half of 1,067 university students aged 17–25 surveyed in Australia reported ever having had oral sex, and 13% had engaged in oral sex but not in vaginal or anal penetration. In the United States, an analysis of the 1995 National Survey of Adolescent Males found that 55% of men aged 15–19 had ever engaged in vaginal intercourse, 49% had ever received oral sex and 39% had ever given oral sex. A study examining precoital sexual activities among a sample of U.S. college students found that 70% of males and 58% of females had engaged in cunnilingus at least once before having penetrative sex; 57% of each gender had engaged in fellatio. In a longitudinal study of 580 U.S. ninth graders

completing self-administered questionnaires, 20% reported having had oral sex, and 14% vaginal sex. In addition, participants viewed oral sex as significantly less risky in terms of health, social and emotional consequences than vaginal sex. ¹¹

Literature on the use of condoms and dental dams during fellatio and cunnilingus remains limited. One study, however, investigating the sexual practices of 952 high school "virgins" in the United States, found that 9% had experienced fellatio with ejaculation, and 10% had engaged in heterosexual cunnilingus. Of those who had engaged in fellatio with ejaculation, 86% had never used a condom and 8% had used condoms sporadically. The researchers speculated that the proportion using dental dams during cunnilingus was even smaller. More recently, analyses from the third wave of the National Longitudinal Study of Adolescent Health revealed that only 4% of young people who had ever had oral sex used a condom the first time. ¹³

The 1990 NATSAL data show that 47% and 46% of young men and women aged 16–19, respectively, had ever engaged in cunnilingus; 47% and 44%, respectively, had engaged in fellatio. ¹⁴ However, little attention has been paid to the timing of oral sex among young people in the United Kingdom and the use of condoms and dental dams during oral-genital contact. In this article, we address this knowledge gap, using findings from a study of young people in education settings.

METHODS

The research, which was conducted between January 2003 and May 2005, consisted of two phases. In the first, full- or part-time students in four areas of the United Kingdom completed a quantitative self-administered questionnaire; in the second, a sample of young people that included a number of the survey respondents completed sexual event diaries. Three focus group discussions held with students from the University of Southampton at the beginning of the project informed the design of the research tools, and young people in each of the study areas assisted with their development.

Both the survey questionnaire and the sexual event diary were approved by the University of Southampton School of Psychology Ethics Committee. Further, the head or lead personal, social and health education teacher of each participating institution approved the content of the questionnaire.

Survey Questionnaire

The survey areas were selected on the basis of local 15–19-year-old women's rates of pregnancy and first episodes of genital warts. To ensure that the sample contained a range of young people and sexual experiences, two areas with high rates of both and two areas with low rates of both were randomly selected.

The sampling frame was all educational institutions (vocational schools, academic schools and colleges) with students aged 16 and older in the four areas, defined by their local education authority boundaries. Because of the sensitive nature of the questionnaire, full random sampling of

institutions was not possible; a few withdrew from the selection process during initial consultations. Cluster sampling was used to select survey respondents; to reduce possible bias associated with sampling large numbers of young people from a small number of clusters, a minimum of five schools were sampled per area. A total of 21 institutions were recruited to the study.

Students submitted completed questionnaires to a teacher or a researcher in a sealed, unmarked envelope to ensure confidentiality. All teachers received detailed instructions as to the procedure to follow, and no problems were reported in relation to possible variations between schools.

The questionnaire was based on that used by de Visser and colleagues in Australia to investigate condom use among young people, ¹⁵ complemented by tried and tested questions from an earlier study of young people's sexual behavior conducted by the Centre for Sexual Health Research. ¹⁶ It assessed multiple variables, including demographic factors; sexual orientation; knowledge and attitudes relating to sexual behavior and health; experiences of STDs and pregnancy; and experiences of oral, vaginal and anal sex. Questions regarding experiences of oral sex were carefully worded in order to be applicable to all young people, regardless of their sexual orientation. Post codes were also collected, enabling allocation of respondents to an index of social deprivation for the small area in which they lived.

Of particular relevance to this article were questions relating to oral sex. Respondents were asked whether STDs can be transmitted through oral sex performed on a man and oral sex performed on a woman; possible responses were yes, no and don't know. Through the use of a five-point Likert scale, respondents were asked how strongly they agreed that men expect to be given oral sex, women expect to be given oral sex and it is important to use condoms for fellatio. Furthermore, the questionnaire asked respondents which sexual activities they had ever engaged in, including fellatio and cunnilingus, and in what order and at what age they had first experienced each.

During the focus group discussions held at the beginning of the study, participants spoke freely about the use of condoms during fellatio, but very few had ever heard of dental dams, and none had used one for cunnilingus. Furthermore, on piloting, recommendations were made not to include questions about dental dams, as many young people were unaware of them. In response to these recommendations, and to ensure the acceptability of the questionnaire, particularly in regard to length, questioning about the use of protection during oral sex was limited to acts of fellatio. Respondents who indicated that they had experienced fellatio more than once were asked to rate the frequency with which they had used condoms during fellatio, using a 10-point scale with responses ranging from never to always. Finally, all those who had ever used a condom for oral sex were asked their reasons for using one. Respondents were given a range of options from which to select, and a space was provided for write-in responses. Multiple answers were permitted.

TABLE 1. Percentage distribution of students participating in a survey on sexual experience and knowledge, by selected characteristics, United Kingdom, 2004

Characteristic	%
Gender	(N=1,368)
Male	44.1
Female	55.9
Age	(N=1,335)
16	58.0
17	31.5
18	7.9
19–21	2.6
Race/ethnicity	(N=1,362)
White	89.5
Black	6.8
Asian	2.4
Other	1.4
Social deprivation level	(N=1,029)
Very low	23.4
Low	15.5
Medium	18.6
High	19.8
Very high	22.6
Sexual orientation	(N=1,344)
Heterosexual	94.5
Homosexual	2.5
Bisexual	1.0
Unsure	1.9
Total	100.0

Sexual Event Diary

All survey respondents were invited, by means of a detachable form, to complete sexual event diaries. These diaries enable data on respondents' sexual behavior to be collected over time and reduce retrospective bias, as each diary is completed soon after a sexual event. In addition, because the sample unit is a sexual event, rather than an individual respondent, variance between events can be analyzed. Twenty-two percent of survey respondents (297) were interested in participating in this phase of the study; of these, 147 fulfilled the selection criterion of having engaged in at least one episode of oral or vaginal sex within the previous six months.

Potential participants received five sexual event diaries and postage-paid return envelopes. The diary consisted of a short questionnaire to be completed as soon as possible after a sexual event, defined as an encounter featuring oral, anal or vaginal sex. Once a participant had returned four diaries, a further five were mailed out; thus, each participant completed up to 10 diaries. The diary phase ran for six months; participants could leave the study at any time.

The diary collected detailed contextual information regarding each sexual event, including partner characteristics, use of alcohol and drugs, communication and discussion regarding contraceptive and condom use, desire to use protection, concerns regarding pregnancy and STD transmission, and use of protection, including reasons for and against.

Sixty-one of the 147 young people recruited via the survey returned at least one completed event diary (for a 41% response rate). Because survey participants were from schools whose students were mainly 16–18 years old and

we wished to include older, more experienced young people in the diary phase of the study, an additional targeting of 18–21-year-olds was undertaken via e-mail and poster advertising in university settings. Another 47 young people enrolled as a result of this process, bringing the final number of participants to 108. A total of 714 diaries were submitted, giving a total sample size of 714 sexual events.

Analysis

Statistical analyses of the questionnaire and diary data were performed using SPSS version 12.0. Because young people's sexual development and experiences differ by gender, we analyzed men and women separately where possible; chi-square was used to test for significant differences. In this article, we focus predominantly on the findings from the survey questionnaire, supplemented by a limited number of findings from the sexual event diaries.

RESULTS Characteristics of the Samples

Forty-four percent of the 1,373 questionnaires were returned by young men, and 56% by young women (Table 1). More than half of respondents (58%) were aged 16, and the vast majority (90%) were white. Nearly a quarter of respondents lived in census wards with a very low level of socioeconomic deprivation (based on national levels), and two-fifths lived in areas of high or very high deprivation. The majority (95%) of respondents described themselves as heterosexual.

Twenty-four males and 84 females returned sexual event diaries. Fifty-nine percent of these respondents were aged 16–18, and 83% were white. Eighty-two percent of the 714 diary events featured vaginal intercourse, and 63% featured an occasion of oral sex (given, received or both).

Knowledge and Attitudes

Twenty-six percent of respondents did not know that STDs can be transmitted via oral sex; a greater proportion of men than of women did not know this (for fellatio, 30% vs. 20%, χ^2 =18.80, p<0.000; for cunnilingus, 30% vs. 21%, χ^2 =14.39,

TABLE 2. Percentage of respondents agreeing to selected statements regarding oral sex, by gender and sexual experience

Statement	Sexually inexperienced	Sexually experienced	χ^2
Men expect to be given oral sex			
Male	34.0	48.9	14.75***
Female	38.0	46.6	8.48**
Women expect to be given oral sex			
Male	17.0	29.7	12.42**
Female	9.5	19.6	18.25**
It is important to use condoms for fellatio			
Male	15.8	13.2	17.09***
Female	37.3	24.7	35.41***
N			
Male	243	360	
Female	276	489	

^{**}p<.01. ***p<.001. *Note*: Sexual experience refers to oral, anal or vaginal sex.

p<0.000). By comparison, only 2% of young people were unaware that STDs can be transmitted via vaginal intercourse with ejaculation. Although older respondents appeared to be more knowledgeable than younger ones, age differences were significant only for females. For instance, 22% of 16-year-old women did not know that STDs can be transmitted to a man through oral sex, compared with 5% of 18-year-olds (χ^2 =11.76, p<0.003); 23% and 5%, respectively, did not know about possible transmission to a woman (χ^2 =12.60, p<0.002).

Overall, 43% of young people agreed or strongly agreed that men expect to be given oral sex, whereas only 20% agreed that women have this expectation. Although there was no difference in opinions between men and women in regard to men's expectation of oral sex, a significantly greater proportion of men than of women agreed that women expect oral sex (25% vs. 16%, χ^2 =22.61, p<0.000). Furthermore, the proportions agreeing with these statements were significantly higher among both men and women who reported having had oral, anal or vaginal sex than among their sexually inexperienced counterparts (Table 2).

Fewer than a quarter of respondents (23%) agreed or strongly agreed that it is important to use condoms during fellatio. Once again, opinions differed between men and women: Some 29% of women agreed that it is important, compared with 14% of men (χ^2 =74.04, p<0.000). Furthermore, a smaller proportion of sexually experienced women than of their sexually inexperienced peers responded positively (Table 2). All of these variations in opinion held across all ages.

Sexual Experience

• Types of experiences. Forty-two percent of men and 52% of women reported having had penetrative vaginal intercourse at least once (Table 3); the proportion was 41% among 16-year-olds, 53% among 17-year-olds and 68% among those aged 18 and older (not shown). A significantly greater proportion of women than of men reported ever having performed oral sex (55% vs. 45%). Similar proportions of males and females reported ever having received oral sex (50% and 52%, respectively). Fifty-six percent of respondents had given or received oral sex. As expected, the proportion with such experience increased with age—from 49% among those aged 16 to 63% among those aged 17 and 73% among those 18 or older.

Seven percent of men and 9% of women reported ever having engaged in anal sex. Only one significant variation in young people's sexual experiences by social deprivation was found: Sixteen percent of men living in areas of very high social deprivation had engaged in anal sex, compared with 3% of young men in areas of very low social deprivation (χ^2 =14.63, p<0.006).

• Timing of oral sex. Some 240 male and 384 female respondents had engaged in penetrative vaginal intercourse. Sixty-four percent of men and 62% of women had engaged in fellatio before first vaginal intercourse occurred. Slightly smaller proportions had experienced cunnilingus prior

to first vaginal intercourse—49% and 55% of men and women, respectively. Overall, 70% of those who had had vaginal intercourse had done so with prior experience of oral sex.

Among the 334 male and 361 female respondents who had never engaged in penetrative vaginal intercourse, 22% and 18%, respectively, had experienced fellatio. Eighteen percent of men had performed cunnilingus, and 16% of women had received it. Overall, among those who had not yet engaged in penetrative intercourse, 22% had had oral sex (24% of males and 21% of females).

Condom Use During Fellatio

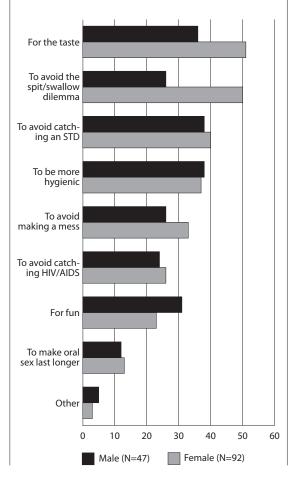
Of all young people who had reportedly given or received fellatio, 20% had ever used a condom; a small but significantly greater proportion of women than of men reported use (23% vs. 17%—Table 3). Among the 82 respondents who had experienced fellatio on only one occasion, 13% of males and 21% of females reported having used a condom. Of the 599 respondents who reported more than one

TABLE 3. Percentage distribution of respondents, by selected sexual behavior measures, according to gender

Measure	Male	Female
Ever had vaginal sex	(N=574)	(N=745)
Yes	41.8	51.5
No	58.2	48.5
$\chi^2 = 12.32***$		
Ever performed oral sex	(N=560)	(N=730)
Yes	44.6	54.9
No	55.4	45.1
$\chi^2=13.42^{***}$		
Ever received oral sex	(N=570)	(N=721)
Yes	50.4	51.9
No	49.6	48.1
Ever received or performed		
oral sex	(N=565)	(N=728)
Yes	54.0	58.4
No	46.0	41.6
Ever had anal sex	(N=555)	(N=721)
Yes	7.4	9.3
No	92.6	90.7
Ever used a condom for fellatio†	(N=285)	(N=402)
Yes	16.6	22.6
No $\chi^2 = 4.23^*$	83.4	77.4
,		
Used a condom at only experience of fellatio†	(N=39)	(N=43)
Yes	12.8	20.9
No	87.2	79.1
Frequency of condom use over		
multiple acts of fellatio†	(N=244)	(N=355)
Never	82.8	77.5
<half of="" th="" the="" time<=""><th>8.6</th><th>15.2</th></half>	8.6	15.2
Most of the time	7.0	5.9
Always	1.6	1.4
Total	100.0	100.0

^{*}p<.05. ***p<.001. †Percentages are based on those who have engaged in fellatio.

FIGURE 1. Percentage of respondents who had ever used a condom during fellatio, by reasons for use, according to gender



occasion of fellatio, 83% of males and 78% of females reported never having used a condom; fewer than 2% of each reported always having used one.

The most common reasons men gave for using condoms during oral sex were to avoid STD transmission and to be more hygienic (Figure 1). By contrast, women most commonly report using condoms because of the taste* or to avoid the dilemma of whether to spit or swallow ejaculate.

Interestingly, condom use during fellatio did not differ between those who knew that fellatio poses a risk of STD transmission and those who did not. Eighty-two percent of those who had experienced fellatio, but never with a condom, reported that STDs can be transmitted during fellatio.

Reasons for not using a condom for fellatio were not explored in the survey questionnaire, but were covered in the sexual event diaries. Once again, condom use for fellatio was found to be very low. In 99% of the 75 diary events submitted by male participants that reported fellatio, no condom was used. Similarly, no condom was used for fellatio

in 96% of the 258 relevant diary encounters submitted by females. The most common reasons men gave for not using a condom were that fellatio feels better without a condom and that they simply had not thought about using one; the most common reason women gave was not wanting to use a condom (Figure 2).

DISCUSSION

In the United Kingdom, the numbers of reported cases of gonorrhea and uncomplicated genital chlamydia have risen steeply since the mid-1990s, particularly among young people. For instance, between 1995 and 2003, diagnoses of new episodes of gonorrhea and chlamydia increased by 197% and 409%, respectively, among men aged 16–19, and by 174% and 252% among women in the same age-group. ¹⁷ Nonetheless, our findings suggest that many young people in the United Kingdom remain ignorant of the ways in which STDs can be transmitted; a quarter of those surveyed were unaware that STDs can be transmitted via oral-genital contact. Further, even among those who were not ignorant of this, few appeared to take heed of the risks involved.

Teenage pregnancy and STD prevention initiatives focused on advocating the use of condoms and other contraceptive methods during penetrative vaginal and anal sex appear to be having some impact, as more than 80% of young people nationally report condom use at first vaginal intercourse. However, although the risk of STD transmission is far greater during vaginal and anal sex than during oral sex, the increasing practice of oral sex, the low rates of barrier method use and the finding that first oral sex often occurs prior to first vaginal or anal sex will likely help increase the relative importance of oral sex as a mode of transmission for genital pathogens. 19

The results presented here are based on a relatively small sample of young people living in the United Kingdom, and the final sample is not truly representative of all those aged 16–21; for instance, only students were included, † and they were not randomly selected. Nevertheless, the results highlight young people's oral sex attitudes and practices, and raise several key issues that merit further consideration by practitioners, teachers, parents, and community and youth workers.

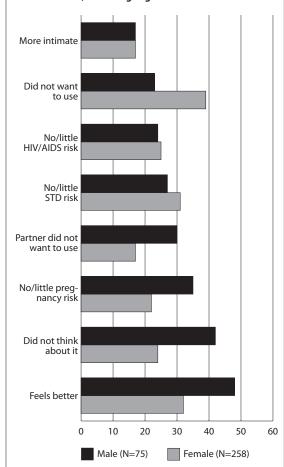
The practice of cunnilingus, although widespread, appears to be slightly less common than that of fellatio. Consistent with this finding, the proportion of respondents who felt that men expect oral sex was greater than the proportion who felt that women have this expectation, which may be evidence of strong and continuing cultural and social taboos imposed on women's sexual expression and fulfilment. ²⁰ Although it appears that many young women have experienced reciprocal sexual gratification with their partners, expectations of the majority remain low.

Not all STDs are curable, but all are preventable. ²¹ Current UK policy for safer-sex promotion is based on increasing choice, encouraging delay until both partners feel ready, and improving the availability and use of protection. Obviously, the use of condoms and dental dams during oral

^{*}Taste does not discriminate between the avoidance of the taste of the penis and associated fluids and the use of flavored condoms.

[†]Attempts were made, however, to select educational institutions with students representing a range of abilities, including those attending vocational and government training programs.

FIGURE 2. Percentage of reported episodes of fellatio in which respondents reported not using a condom, by reasons for nonuse, according to gender



sex is key if transmission risk is to be minimized. However, our findings highlight young people's lack of motivation to use condoms during fellatio, let alone to consider using dental dams for cunnilingus. Only 29% of women surveyed and 14% of men agreed that it is important to use condoms during fellatio, and levels of agreement were lower among sexually experienced young people than among those who had yet to experience oral, anal or vaginal sex.

Consequently, levels of condom use during fellatio were extremely low. Moreover, condom use during fellatio was no more common among those with correct knowledge of STD transmission routes than among those without such knowledge, indicating that a shift in behavior will require more than increasing knowledge. Reduced pleasure and lack of motivation, desire and forethought were all reasons given for not using condoms during fellatio, whereas more practical reasons—to be hygienic, to avoid the dilemma of whether to spit out or swallow ejaculate, and to deal with the taste—were commonly cited as triggers for use.

The survey results do not shed further light on the debate as to whether young people use oral sex to avoid intercourse or whether they feel pressure to engage in oral sex.²² Nevertheless, the findings suggest that oral sex is a highly prevalent behavior among UK young people and that it frequently

begins at an early age—a fact that some health and education professionals may overlook but that has direct bearing on health promotion activities. Greater efforts are needed to publicize the risk of exposure to STDs that many young people face because they engage in unprotected noncoital sexual activities before (and after) they enter into relationships involving coitus. Accordingly, the definitions of "sex," "sexual activity" and "risky sexual behaviors" need to be extended and clearly defined, in both health and education agendas, to prevent some risk behaviors from being overlooked. As research has shown, leaving young people to determine for themselves the definition of terms can lead to widespread confusion: In a survey of 527 U.S. college students, 55% of those who said they had kept their vow to abstain from sexual activity until marriage reported having engaged in oral sex.²³ While the considerably higher risks of vaginal (and anal) sex need to be stressed, it is vital to inform young people of the risks of other sexual behaviors, and not to limit the issue of safer sex to safer vaginal sex.

One reason that the risks associated with oral sexual activities among young people have received little attention may be the priority given in school-based sex education classes to sex for reproduction. Allen has pointed to the gap between knowledge as received during sex education in New Zealand schools and the practices young people engage in. She argues that young people perceive knowledge from secondary sources as "comprising two discourses; an official discourse of knowledge and a discourse of erotics."24 Since oral sex can be regarded as falling more within the erotic zone than the knowledge zone (that is, sex as reproduction), it is likely to be relatively ignored in school settings. Hirst raises a similar issue, concerning UK young people's views of the mismatch between their school-based sex education and their actual experiences; foreplay and "heavy petting" were reported as being more or less ignored in classroom coverage of sex and relationships.²⁵ Fine and Tolman are among those who have pointed to the lack of discussions of desire in formal sex education classes, 26 and Ingham has written about the relative silence surrounding the concept of pleasure, both in schools and in the home.²⁷

Given the prevalence of oral sex and the lack of knowledge about its risks among young people, it is essential that those charged with teaching youth about sexual issues—whether in schools, in clinics or in homes—be encouraged to broaden the scope of their coverage.

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