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The NFHS BULLETIN summarizes findings from the 1992–93 National Family Health Survey. The NFHS collected information from nearly 90,000 Indian women on a range of demographic and health topics. The survey was conducted under the auspices of the Indian Ministry of Health and Family Welfare to provide national and state-level estimates of fertility, infant and child mortality, family planning practice, maternal and child health, and the utilization of services available to mothers and children.

The International Institute for Population Sciences (IIPS), Mumbai, conducted the NFHS in cooperation with various consulting organizations and 18 population research centres throughout India and with the East-West Center in Honolulu, Hawaii, and Macro International in Calverton, Maryland. The U.S. Agency for International Development provided funding for the NFHS and for this publication.

Media Exposure Increases Contraceptive Use

India's national family welfare programme has been broadcasting family planning messages on radio and television for many years. The electronic mass media play an important role in educating women on the benefits of small families and providing them with information on contraception. Radio and television are particularly important in a country where 63% of currently married women of reproductive age are illiterate.

Results from the 1992–93 National Family Health Survey (NFHS) provide useful feedback on the effectiveness of the Indian government's media campaigns. This issue of the *NFHS Bulletin* investigates the extent to which media exposure affects women's current use of contraception and their plans to use contraception in the future.

An analysis of nationally representative data for 84,558 currently married women of reproductive age (13–49 years old) indicates that general exposure to radio, television, and cinema has a strong positive effect on both current contraceptive use and intended future use of contraception. One question of particular interest to policymakers, however, concerns whether specific exposure to family planning messages has an effect on contraceptive behavior beyond the general effect of media exposure. This analysis shows that recent exposure to family planning messages on radio or television has a significant positive effect on current and intended future use of contraception, even after controlling for the effects of general media exposure and a number of other variables.

Exposure to mass media

The NFHS included three questions on women's general media exposure: "Do you usually listen to radio at least once a week?", "Do you usually watch television at least once a week?", and "Do you usually go to a cinema hall or theatre to see a movie at least once a month?" Two additional questions asked specifically about recent media exposure to family planning messages: "In the last month, have you heard a message about family planning on radio? On television?"

In response to the questions on general media exposure, 44% of currently married women of reproductive age reported that they listened to radio regularly, 32% watched television regularly, and 15% went to the cinema at least once a month. Altogether, 53% of these women reported regular exposure to one or more types of electronic

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Table 1. Media exposure reported by currently married women age 13–49, by residence, education, and number of living children: National Family Health Survey, 1992–93

Type of exposure	Residence		Education				Number of living children		
	Urban	Rural	Illiterate	Literate, less than middle complete	Middle complete	High school complete	0–1	2–3	4+
Percentage with exposure to radio or television at least once a week or cinema at least once a month	82	43	36	73	86	94	56	57	44
Percentage who heard a family planning message on radio or television during the previous month	69	33	28	56	70	85	44	47	35

media; the other 47% were not regularly exposed to any electronic media. In response to the questions on exposure to family planning messages, 15% had recently heard a message on radio only, 6% had heard a message on television only, 22% had heard a message on both radio and television, and 57% had not heard a family planning message on radio or television.

Women who lived in urban areas were much more likely than rural women to be exposed to electronic media on a regular basis and to have heard a family planning message (Table 1). Similarly, more educated women were more likely than the less educated to report general media exposure and exposure to family planning messages. Table 1 also shows that both general media exposure and specific exposure to family planning messages were considerably higher for women with three or fewer living children than for women with larger families.

Effects on current contraceptive use

Because there is a strong relationship between media exposure and residence, education, and number of living children, it is possible that any apparent effects of media exposure on current contraceptive

use are actually due to these other variables. To assess the effects of media exposure on contraceptive use more accurately, statistical controls are introduced that adjust for the effects of residence, education, and number of living children by holding them constant.

Looking at currently married women of reproductive age who were not pregnant at the time of the survey, Figure 1 shows the unadjusted and adjusted effects of general media exposure on current contraceptive use. The contraceptive use rates shown in this figure are derived by logistic regression (taking clustering into account in the calculation of statistical significance) and multiple classification analysis. The unadjusted contraceptive use rates are based on general media exposure alone, while the adjusted rates additionally take account of urban/rural residence, education, and number of living children by holding these variables constant at their mean values.

The unadjusted results in Figure 1 indicate that, in the absence of statistical controls, general media exposure increases the contraceptive use rate by 20 percentage points. When residence, education, and number of living children are statistically controlled, this increase is reduced to 16 percentage points, which is still quite a large effect.

Figure 2 indicates that, in the absence of statistical controls, recent exposure to family planning messages on radio or television increases the contraceptive use rate by 17 percentage points. Adjusting for residence, education, and number of living children reduces this increase to 12 percentage points. When the statistical controls are expanded to include general media exposure, the effect of exposure to family planning messages is further reduced to 4 percentage points. All the effects reported here are highly statistically significant (at the .01% level or better).

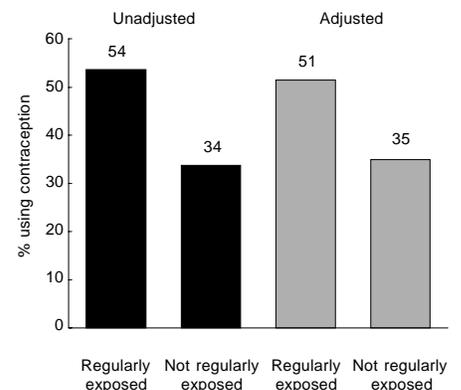


Figure 1. Contraceptive use by currently married, nonpregnant women age 13–49, by general exposure to electronic mass media: National Family Health Survey, 1992–93

It is difficult to draw firm conclusions about the causal relation between media exposure and contraceptive use because about three-quarters of current contraceptive users covered in this analysis were sterilized or had husbands who were sterilized. Many of these couples decided on sterilization long before the NFHS. Many couples using temporary methods undoubtedly also started using contraception long before the survey. The NFHS, on the other hand, only asked about exposure to family planning messages during the one-month period before the survey. Questions on general media exposure did not specify a time period, but most respondents probably assumed that these questions also referred to the recent past.

Clearly, decisions made months—or even years—ago cannot be attributed to recent media exposure. Although the NFHS did not collect information on long-term media exposure, it is likely that women who reported recent media exposure were also exposed to electronic media in the more distant past. It may thus be reasonable to view recent exposure to electronic media as a fairly good proxy for past exposure.

Effects on intended future use of contraception

Given the problem of linking recent media exposure to contraceptive decisions that may have been made further in the past, a better indication of the effects of media exposure on contraceptive use may be drawn from information in the NFHS on intended future use of contraception. All currently married women who were not using contraception at the time of the survey were asked, “Do you intend to use a method to delay or avoid pregnancy at any time in the future?” The unadjusted results in Figure 3 show that general media exposure increases intended future use of contraception by 11 percentage points. When residence, education, and number of living children are statistically controlled, this increase is reduced to 7 percentage points.

Figure 4 shows the effects of recent exposure to family planning messages on radio or television on intended future use of contraception. In the absence of statistical controls, exposure to family planning messages increases intended future use of

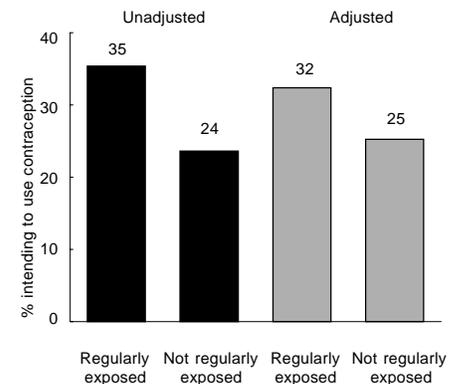


Figure 3. Intended future contraceptive use by currently married, noncontracepting women age 13–49, by general exposure to electronic mass media: National Family Health Survey, 1992–93

contraception by 12 percentage points. When residence, education, and number of living children are statistically controlled, this increase is reduced to 7 percentage points. When general media exposure is also controlled, the effect is further reduced to 6 percentage points. Again, all effects are highly statistically significant (at the .01% level or better).

Discussion and policy implications

This analysis suggests that general exposure to electronic mass media has a substantial positive effect on current contraceptive use and intended future use of contraception. Specific exposure to family planning messages on radio or television during the month before the survey also has considerable positive effects. Controlling for general media exposure (i.e., holding general media exposure constant) substantially reduces the effect of specific exposure to family planning messages on current contraceptive use but only slightly reduces the effect of specific exposure on intended future use.

The effects of exposure to family planning messages on radio and television may

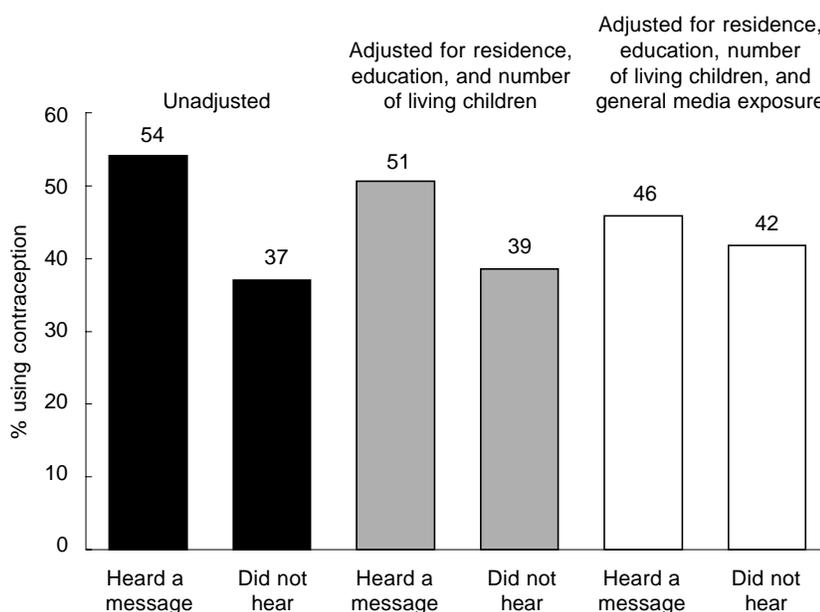


Figure 2. Contraceptive use by currently married, nonpregnant women age 13–49, by specific exposure to family planning messages: National Family Health Survey, 1992–93

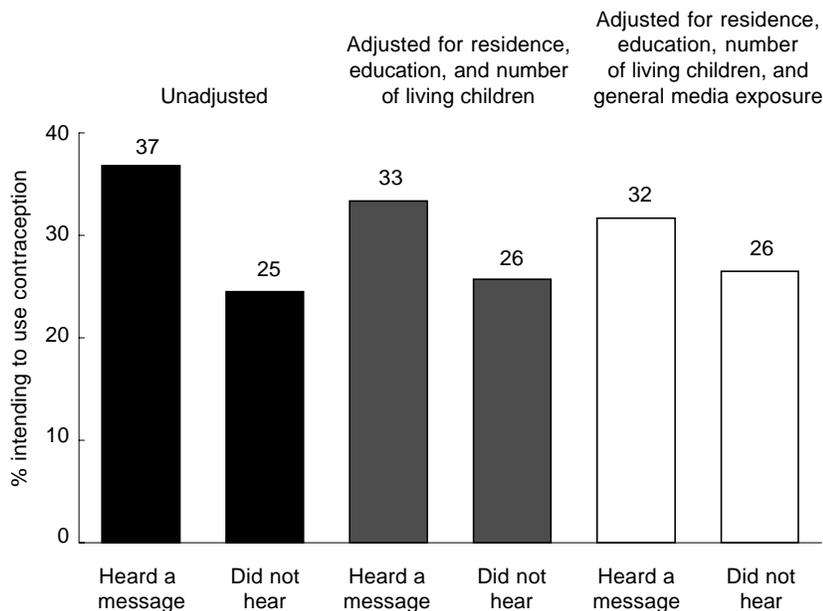


Figure 4. Intended future contraceptive use by currently married, noncontracepting women age 13–49, by specific exposure to family planning messages: National Family Health Survey, 1992–93

well be larger than the estimates presented here. Some respondents who did not hear a message during the previous month may have heard a message at some earlier time, and this earlier exposure may have caused them to start using contraception or decide to use contraception in the future. Because the NFHS only asked about exposure to family planning messages during the month before the survey, it is not possible to gauge the effects of earlier media exposure.

What are the policy implications of these findings? They suggest that the Indian government should continue to sponsor family planning messages on radio and television and perhaps even intensify these efforts. This would seem to be a cost-effective approach to reaching the millions of women who are exposed to electronic media and informing them about the use of contraception and the benefits of small family size.

The government should also do what it can to increase general exposure to electronic mass media. This is more difficult because the main barrier to increased ownership of radios and televisions is inadequate incomes—a daunting challenge for government policies and programs.

Another constraint limiting exposure to electronic media in much of India is inadequate access to electrical power, particularly in the rural areas. According to the NFHS, nearly half of all households in India do not have electricity. Acceleration of the pace of rural electrification and expansion of telecommunication networks could do much to increase media exposure, especially exposure to television.

Reference

Some of the results presented here are taken from:

Ramesh, B. M., S. C. Gulati, and Robert D. Retherford. 1996. *Contraceptive use in India, 1992–93*. National Family Health Survey Subject Reports No. 2. Mumbai: International Institute for Population Sciences; and Honolulu: East-West Center, Program on Population.

The **International Institute for Population Sciences** was established at Mumbai in 1956 as the regional institute for training and research in population studies for the Asia and Pacific region of the United Nations. Now also a deemed university, it is an autonomous institution sponsored jointly by the Government of India, the United Nations Population Fund, and the Sir Dorabji Tata Trust.

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The *NFHS BULLETIN* Editorial Committee consists of Fred Arnold, B. M. Ramesh, Robert D. Retherford, T. K. Roy, and Sidney B. Westley.

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