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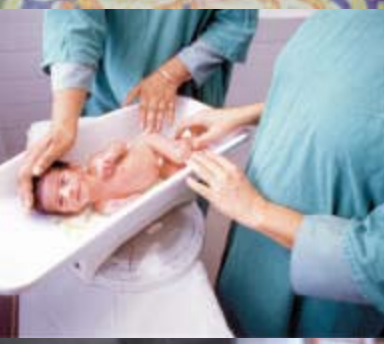
# Reach of media and interpersonal communication in rural Uttar Pradesh: Implications for behavior change communication

Population Council






Policy Brief No. 10, 2010

Shaping Demand and Practices to Improve Family Health Outcomes in Northern India

# Reach of media and interpersonal communication in rural Uttar Pradesh: Implications for behavior change communication

## Background

Mass media, due to its wide reach, cost-effectiveness and appeal, has been used globally to disseminate information and promote healthy behaviors. The substantive growth in new information and communication technologies (ICTs), such as mobile phones, has provided new opportunities to promote behavior change. However, often populations with higher health burdens have poor access to communication technologies and information related to health care services.

Studies demonstrate that behavior change communication (BCC) is effective when the media and the message are context based, tailored to the needs of the audience, designed to be interactive and motivates the audience to take action. For a successful communication strategy it is important that messages are aligned, integrated and reinforcing. If the reach of mass media is not up to the desired level, mid media and interpersonal communication (IPC) can complement mass media efforts in disseminating family health messages. Mid media and IPC may be particularly effective in case of poor and disadvantaged groups living in small and remote villages as they have limited exposure to mass media.

One of the main challenges for BCC is to identify ways to reach the intended audience with appropriate media. Mapping the reach of various media and assessing the viewership, listenership and readership habits are important to enable appropriate media planning, allocation of funds and optimization of resources to reach the intended audiences.

In 2009, RK Swamy BBDO and the Population Council carried out an analysis to assess the reach of the media and IPC. RK Swamy BBDO, a leading advertising agency and a partner in the Population Council-led consortium, analyzed Indian Readership Survey (IRS)[1] and Television Audience Measurement (TAM)[2] data to explore the reach of various mass media and viewership pattens. The Population Council, using NFHS data and data collected in a formative study, analyzed the reach of other sources of information, including mobile phones, mid media and IPC, in addition to mass media (print media, radio and TV). The project was funded by the Bill and Melinda Gates Foundation.

This policy brief discusses the findings of the study. It describes the current status and trends in mass media exposure and media reach by audience segmentation. It also explores the reach of mid media and IPC between frontline health workers and family members, particularly women, husbands and mothers-in-law in rural Uttar Pradesh (UP).

## Methodology

Diverse sources of information and data-sets for UP were used, including an analysis of the IRS, TAM, NFHS-2 and NFHS-3[3] data-sets, and data collected in a formative study by the Population Council in rural UP[4].

The formative study was conducted in two phases. First, a survey was conducted covering 4,754 households, 4,472 currently married women aged 15-34 years who had delivered a child in the last three years, 2,274 husbands, 2,372 mothers-in-law, 1,050 frontline health workers and private providers

[1]Indian Readership Survey (IRS), 2008, Round 2.
[2]Television Audience Measurement (TAM), 2008.
[3]Data from NFHS-2 (1998-99) and NFHS-3 (2005-06) presented in this policy brief are based on an analysis, conducted by the Population Council, of currently married women aged 15-34 in rural UP who had given birth in the three years preceding the survey.
[4]D. Ganju, I. Bhatnagar, S. Jain, A. Hazra and M.E. Khan. 2010. "Reach of Media and Interpersonal Communication in Rural Uttar Pradesh: Implications for Behavior Change Communication," in M.E. Khan, Gary Darmstadt, T. Usha Kiran and D. Ganju, eds. *Shaping Demand and Practices to Improve Family Health Outcomes in Northern India: Exploring Partnerships.* New Delhi: Population Council (forthcoming).

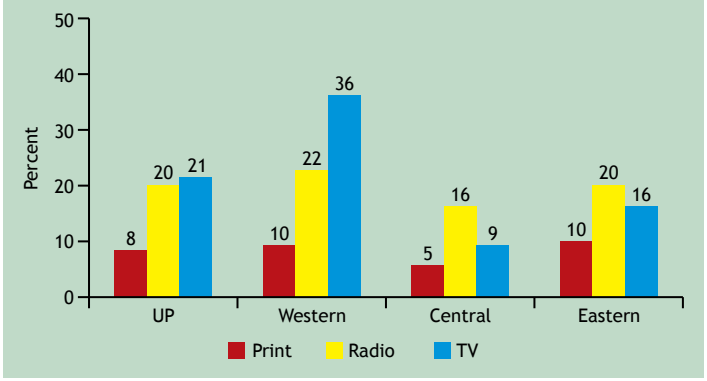
and 144 government health facilities (PHCs and CHCs) from 225 villages in 12 districts spread across all regions of UP. In the second phase, 308 in-depth interviews were conducted with all the above-mentioned stakeholders. The qualitative study was conducted in 24 villages: eight villages each from three districts, one district from each of the three regions of UP.

## Key findings

### Mass media

Reach of mass media: An analysis of IRS data reveals that mass media has limited reach, covering only about 20 percent of the rural population of UP (Figure 1). Trend analysis shows that the reach of all three types of mass media has remained almost unchanged over the three years from 2006-08.

**Figure 1: Reach of different mass media in rural UP[1]**




Regional variations are evident in the reach of mass media. In the Western region, the reach of TV was relatively higher (36 percent) as compared to radio (22 percent) and print media (10 percent), whereas in the Central and Eastern regions, the reach of radio was relatively higher (16-20 percent) than the reach of TV or print media.

NFHS data and the Population Council formative study on women's exposure to different types of mass media in rural UP, show that the reach of radio has gone down slightly from 23 percent in 2005-06 to 19 percent in 2009. In contrast, the reach of TV has increased from 23 percent in 1998-99 to 32 percent in 2009.

Media reach by audience segmentation: Table 1 shows that irrespective of gender, the reach of mass media is low among non-literate groups (around 20 percent), and it will be a challenge to reach the large segment of the population that is not exposed to any type of mass media. However, with the increase in the level of education among both men and women, the reach of mass media also increases.

**Table 1: Reach of mass media by education among women and men in rural UP (percent)[1]**

| | Non-literate | Educated up to Class 9 | Educated above Class 9 |
|---|---|---|---|
| **WOMEN** | | | |
| Press | -- | 2.9 | 21.1 |
| TV | 12.2 | 28.3 | 48.5 |
| Radio | 9.2 | 21.2 | 31.3 |
| TV + Radio | 18.6 | 39.8 | 60.1 |
| Press +TV+Radio | 18.6 | 40.2 | 62.9 |
| **MEN** | | | |
| Press | -- | 11.1 | 36.6 |
| TV | 10.3 | 23.0 | 36.7 |
| Radio | 9.5 | 25.8 | 40.8 |
| TV + Radio | 17.8 | 40.5 | 58.4 |
| Press +TV+Radio | 17.8 | 44.9 | 67.2 |

A combination of TV and radio emerges as the most effective approach to reach both men and women, as compared to a combination of all three media. Exposure to TV is slightly higher among women than men, irrespective of education. The print media has a higher reach (37 percent) among educated men as compared to educated women (21 percent).

The formative study of the Population Council shows that women with no education, belonging to Scheduled Caste/Tribes, from households with a low standard of living and residing in smaller villages had the least exposure to any mass media (9 percent) as compared to those with higher education, belonging to general castes, from households with a high standard of living and residing in larger villages (87 percent).

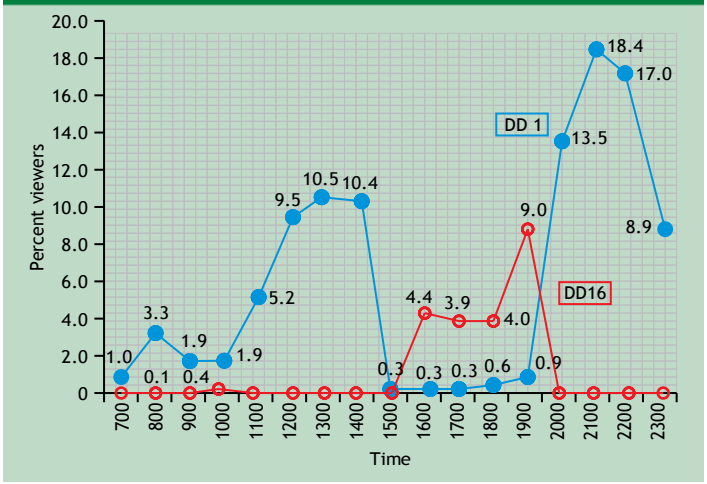
The logistic regression analysis shows that women's education, household standard of living index (SLI) and village population size were significant predictors for mass media exposure. Women from households with a high SLI were seven and a half times more likely (OR 7.69, $p<0.001$) to be exposed to mass media than those from households with a low SLI. Women with a secondary or higher education were three times more likely (OR 3.16, $p<0.001$) to be exposed to mass media than non-literate women, and those from larger villages (population over 3,000) were one and a half times more likely (OR 1.53; $p<0.001$) to be exposed to mass media than women residing in smaller villages.

Share of TV channels: The share of TV channels in UP is mainly divided between Doordarshan/DD1, the national broadcaster, and other non-cable and satellite (non-CS) channels. Other non-CS channels refer to no satellite TV connection and access to all DD platform channels, such as DD Direct. DD1 has the highest channel share (51 percent)

across the target audiences, followed by other non-CS channels (31 percent). DD16 Lucknow, DD Delhi and DD news have a channel share of 11 percent, 5 percent and 2 percent, respectively. All the major entertainment programs on DD1 and DD16 Lucknow are either daily serials or programs related to film songs or Hindi movies. Exposure to commercial cable TV has increased very slowly in rural UP.

Timing of TV viewership: The analysis of daypart viewership patterns (i.e., by time segment in the broadcast day) of DD1 and DD16 Lucknow shows that DD1 is primarily viewed in the afternoon between 1200-1400 hours and in the evening between 2000-2200 hours (Figure 2). DD16 Lucknow, which is the local feed aired in place of DD1 from 1600-2000 hours, also has a reasonable viewership.

**Figure 2: Daypart viewership patterns in UP[2]**




Media planning and cost of reaching viewers: An analysis of the TAM data shows that DD, with a reach of 84 percent and 72 percent among women and men (aged 15-44 years), respectively, is the most effective cost-per-contact medium. The cost-per-reach is Rs 6.50 and Rs 6.30 respectively, for women and men. The cost-per-contact for the print medium is far more effective for men (Rs 10.90) than for women (Rs 54.00).

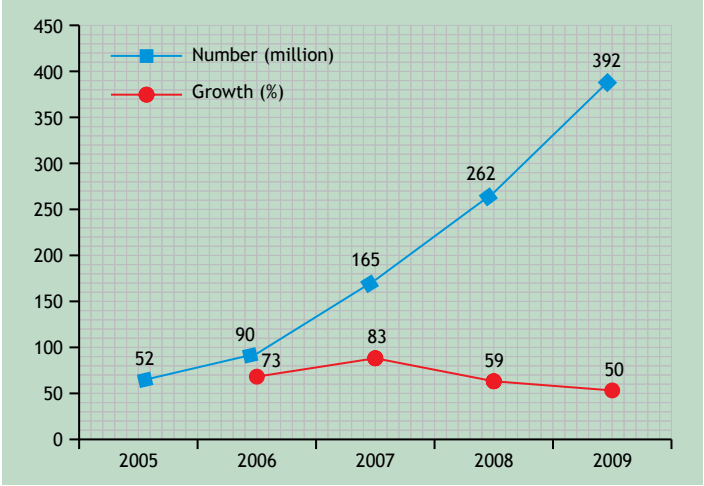
## Mid media

Availability and readability of posters/wall paintings at public health facilities: Apart from a few themes like Janani Suraksha Yojana (JSY), immunization schedule and pulse polio, less than 20 percent of the health facilities (of the 144 PHCs/CHCs covered in the formative study) had readable posters/wall paintings on other important family health issues like postpartum care, birth spacing, contraceptive methods for spacing, exclusive breastfeeding and complimentary feeding. In 30-60 percent of health facilities, posters/wall paintings were on themes like TB, female/male sterilization and HIV/AIDS.

Availability of leaflets and counseling aids at public health facilities and with frontline health workers: The formative study shows that only one-fourth of PHCs/CHCs had leaflets and counseling aids on any health issues. Just 11-21 percent of PHCs had leaflets on specific family health behaviors such as danger signs during pregnancy, newborn care, breastfeeding, family planning and immunization; even fewer CHCs (6-15 percent) had such leaflets. Similarly, the availability of counseling aids on specific family health behaviors was low, ranging from 12-23 percent in PHCs and 13-20 percent in CHCs. Only around one-fifth of frontline health workers reported that they had been provided with leaflets for distribution or flip charts to counsel women and their families.

Reach of mobile phones: India has the second largest telecom network in the world, after China. The number of mobile phone subscribers has increased tremendously over the last four years (Figure 3)[5]. According to the Telecom Regulatory Authority of India (TRAI), the rate of growth of mobile subscriptions was 50 percent during 2008-09 and the current growth is 15 million connections per month.

**Figure 3: Trend of mobile subscriptions in India[5]**




Of the 392 million mobile phone subscribers in India, 4 service providers–Bharti, BSNL, Reliance and Vodafone–contribute 73 percent of the market share while 8 service providers contribute only 27 percent.

[5]TRAI. 2008-09. Annual Report 2008-09. New Delhi.

**Access to mobile phones within the community:** The Population Council formative study reveals that more than half the households (55 percent) in rural UP own a mobile phone. More men (50 percent) than women (9 percent) own and use mobile phones. Many women who did not own a mobile phone had access to a mobile phone (41 percent) in the family. Interestingly, because of lack of knowledge on mobile use, some women depended on others, most often family members, to dial a number. Data on health care providers show that 60 percent of ASHAs and AWWs, and 83 percent of village private practitioners, had a mobile phone.

### Interpersonal communication

**Contact with frontline health workers:** Results from the Population Council formative study show that contact between women and families and any frontline health worker was high: 83 percent of women, 53 percent of husbands and 59 percent of mothers-in-law reported contact with at least one frontline health worker, mainly the ASHA (51-58 percent). Among women who met more than one frontline health worker, 36 percent reported that they had met the ASHA and ANM; contact with the ASHA and AWW, or ANM and AWW, was low (less than 5 percent). Few husbands and mothers-in-law (up to 5 percent) reported contact with frontline health workers other than the ASHA.

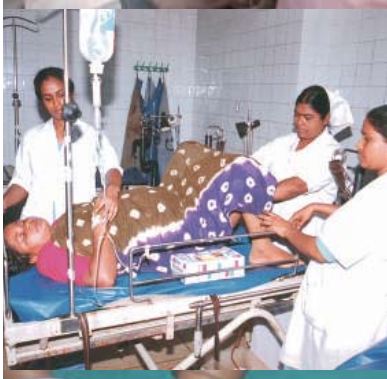
## Implications for the BCC strategy

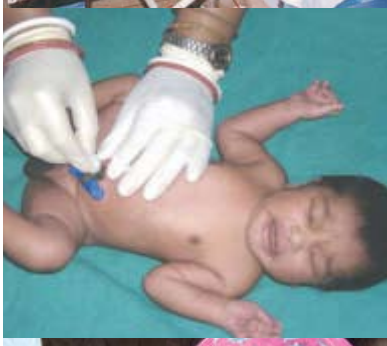
**Audience segmentation:** Mass media reaches only 20 percent of the rural population in UP. Reach by media type differs. TV and radio together have the potential to reach the educated (Class 9 and above) population segments. As many people listen to the radio on their mobile, and the reach of the mobile phone is high and increasing even in rural areas, messages sent on the radio could reach a large population. Among educated men, the reach of print media is almost the same as radio and TV, and thus could be used in conjunction with these two media.

**Media mix:** Given the findings that the reach of mass media is poor in rural UP and the pace of growth has been slow, IPC could play a crucial role in BCC in these settings. While the reach of mass media is highest among educated men, IPC by frontline health workers is women's preferred source of information. The ASHA and ANM are the preferred source of information on several health issues including JSY, place of delivery, postpartum care, newborn care, family planning and immunization. As ASHAs and ANMs contact a large number of rural women, poor and disadvantaged groups can be reached through IPC; these efforts should be supported by messages disseminated through the mass media, like TV and radio, for effective behavior change. Additionally, community radio could be an important alternative media vehicle in rural settings and its effectiveness in reaching the unreached should be explored.

The greatest challenge would be ensuring alignment and consistency of messages across all types of media. The BCC framework developed by the Population Council could help in media planning, for example, segmenting audiences, planning audience-specific messages and choosing an appropriate media mix[6].

[6]Population Council. 2010. *Shaping Demand and Practices to Improve Family Health Outcomes in Northern India: A Framework for Behavior Change Communication.* New Delhi: Population Council.





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