

# SOCIODEMOGRAPHIC PREDICTORS OF ATTENTION TO MEDIA CHANNELS FOR HEALTH INFORMATION: RESULTS FROM THE HEALTH INFORMATION NATIONAL TRENDS SURVEY (HINTS)

Angela L. Falisi, MPH, Chan L. Thai, PhD, MPH, Wen-ying Sylvia Chou, PhD, MPH, Kelly Blake, ScD  
Behavioral Research Program, National Cancer Institute



## Background

- Exposure to messages has been suggested as one of the most significant determinants that influence the effectiveness of health communication efforts<sup>1</sup>
- Differential attention is one factor that may impact exposure to information channels, which could influence dissemination of relevant health messages<sup>2</sup>
- With health information becoming increasingly available through multiple channels, understanding which channels people are most likely to focus their attention on can help understand exposure to health information
- This analysis aims to:
  - Provide unadjusted population estimates of attention to media channels for health information
  - Explore how sociodemographic factors may predict attention to different media channels

## Data Source



HINTS is a cross-sectional, nationally representative survey of the U.S. adult population that gathers data on the public's access to, need for, and use of health-related information.<sup>3</sup>

Health Information National Trends Survey fourth iteration, Cycle 1 (HINTS 4, Cycle 1)

Collected from October 2011 to February 2012 (N=3959) through mailed questionnaires.<sup>4</sup>

Table 1. Respondent Demographics, HINTS 4 Cycle 1 (n=3959)

| Characteristic         | n (%)      | Characteristic      | n (%)      |
|------------------------|------------|---------------------|------------|
| <b>Sex</b>             |            | <b>Education</b>    |            |
| Male                   | 1552(48.5) | Less than HS        | 391(12.8)  |
| Female                 | 2304(51.5) | 12 yr or HS         | 785(23.1)  |
| <b>Age (years)</b>     |            | Post-HS, no college | 1167(31.1) |
| 18-29                  | 327(22.2)  | College             | 936(20.5)  |
| 30-49                  | 1187(35.5) | Post-Grad           | 595(12.5)  |
| 50-69                  | 1669(30.4) | <b>Income</b>       |            |
| 70+                    | 708(12.0)  | <15K                | 588(17.2)  |
| <b>Race/Ethnicity*</b> |            | 15-34999K           | 825(24.3)  |
| White                  | 2431(66.8) | 35-74999K           | 1114(29.4) |
| Black                  | 576(11.4)  | 75+K                | 1031(29.0) |
| Hispanic               | 461(14.5)  |                     |            |
| Other                  | 271(7.4)   |                     |            |

\*Oversampling for Hispanic and African American populations

## Methods

### Measures

7 questions related to attention paid to various media sources for health or medical information

A10. How much attention do you pay to information about health or medical topics from each of the following sources?

|   | None | A little | Some | A lot |
|---|------|----------|------|-------|
| a. In online newspapers.....                                  | 4    | 3        | 2    | 1     |
| b. In print newspapers.....                                   | 4    | 3        | 2    | 1     |
| c. In special health or medical magazines or newsletters..... | 4    | 3        | 2    | 1     |
| d. On the Internet.....                                       | 4    | 3        | 2    | 1     |
| e. On the radio.....  | 4    | 3        | 2    | 1     |
| f. On local television news programs.....                     | 4    | 3        | 2    | 1     |
| g. On national or cable television news programs.....         | 4    | 3        | 2    | 1     |

For the purposes of logistic regression, responses were dichotomized to be 'high attention' (some, a lot) vs. 'low attention' (none, a little).

**Primary Predictor Variables:** Sex, Age, Race/ethnicity, Education, and Income

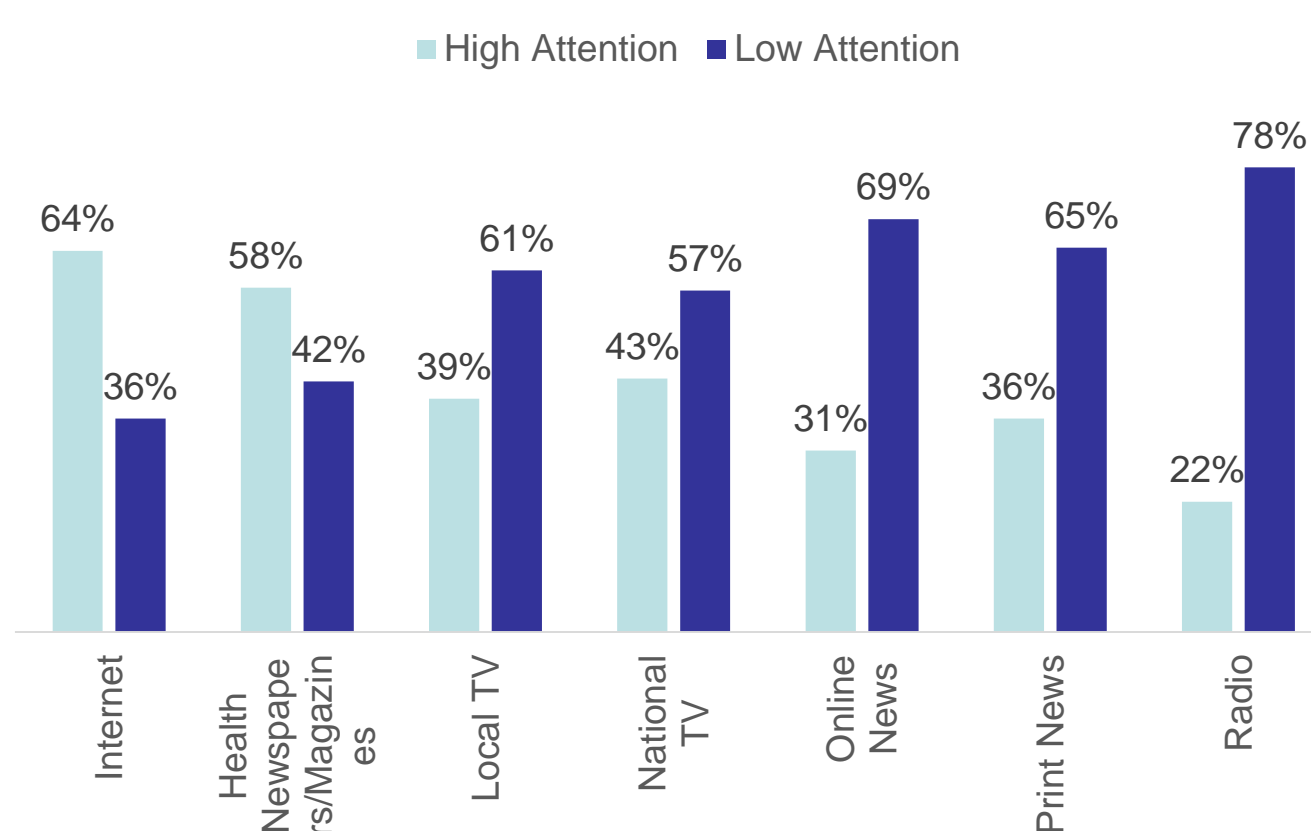
### Statistical analysis

Analyses were conducted using SAS-callable SUDAAN version 10.0.1 to account for the complex sampling design and to provide representative estimates of the U.S. population.

Multivariable logistic regression was used to model the fitted odds that the sociodemographic variables independently and differentially predicted attention paid to each type of media source for health information.

## Results

Figure 1. Attention to Specific Sources for Health Information (Unadjusted % of all respondents)



## Results

Table 2. Sociodemographic Predictors of Attention to Media Channels for Health Information

|                       | Channel                              |                   |                   |                      |                      |                     |                |
|-----------------------|--------------------------------------|-------------------|-------------------|----------------------|----------------------|---------------------|----------------|
|                       | Health Newspapers/Magazines (n=3219) | Internet (n=3171) | Local TV (n=3212) | National TV (n=3208) | Online News (n=3158) | Print News (n=3201) | Radio (n=3165) |
| <b>Sex</b>            |                                      |                   |                   |                      |                      |                     |                |
| Male (ref)            | 1                                    | 1                 | 1                 | 1                    | 1                    | 1                   | 1              |
| Female                | 1.39**                               | 1.57**            | 1.37*             | 1.40*                | 1.19                 | 1.23                | 1.25           |
| <b>Age (years)</b>    |                                      |                   |                   |                      |                      |                     |                |
| 18-29 (ref)           | 1                                    | 1                 | 1                 | 1                    | 1                    | 1                   | 1              |
| 30-49                 | 1.41                                 | 1.02              | 1.29              | 1.07                 | 0.79                 | 1.04                | 1.15           |
| 50-69                 | 1.61*                                | 1.04              | 1.43*             | 1.27                 | 0.7                  | 1.17                | 1.65*          |
| 70+                   | 1.78*                                | 0.45***           | 1.02              | 1.12                 | 0.48**               | 1.24                | 0.85           |
| <b>Race/Ethnicity</b> |                                      |                   |                   |                      |                      |                     |                |
| White (ref)           | 1                                    | 1                 | 1                 | 1                    | 1                    | 1                   | 1              |
| Black                 | 1.83**                               | 1.50*             | 2.51***           | 2.66***              | 1.57                 | 1.60*               | 2.44***        |
| Hispanic              | 1.66*                                | 1.72              | 2.29***           | 2.33***              | 2.59***              | 1.50                | 1.96**         |
| Other                 | 1.20                                 | 1.04              | 1.37              | 1.12                 | 1.84*                | 1.33                | 1.37           |
| <b>Education</b>      |                                      |                   |                   |                      |                      |                     |                |
| Less than HS (ref)    | 1                                    | 1                 | 1                 | 1                    | 1                    | 1                   | 1              |
| 12 yrs or HS          | 1.16                                 | 1.24              | 0.65              | 0.86                 | 0.87                 | 1.14                | 1.07           |
| Post HS, no college   | 1.20                                 | 2.22**            | 0.79              | 1.04                 | 1.11                 | 0.97                | 1.09           |
| College               | 1.47                                 | 2.51**            | 0.59              | 0.82                 | 1.33                 | 1.20                | 1.30           |
| Post Grad             | 1.43                                 | 3.28***           | 0.58              | 0.92                 | 1.70                 | 1.53                | 1.19           |

Fully adjusted multivariable logistic regression models  
\*Significant at p<.05  
\*\*Significant at p<.01  
\*\*\*Significant at p<.001

**Key Findings:** Significant differences in attention paid to media sources by sex, race/ethnicity, age and education

- Sex** - Females have a higher odds of paying attention to internet sources, health newspapers/magazines and TV for health information as compared with males
- Race/Ethnicity** – African Americans & Hispanics have a higher odds of paying attention to TV, health news/mags, and radio sources for health information, compared to White respondents
- Age** - Individuals aged 70+ have a lower odds of paying attention to internet sources and online news as compared with those aged 18-29 years
- Education** - Individuals with higher levels of education have a higher odds of paying attention to internet sources, as compared with those with a high school education or less

## Conclusions

- Attention to health information on the internet is generally higher than attention to TV, radio and print news sources.
- Traditional media channels like TV, radio and magazines/newspapers remain an important source of health information, especially among African-American and Hispanic populations.
- While the Internet is a universally popular source of health information, other media channels should be considered during dissemination planning when targeted communication is necessary to reach at risk or traditionally underserved populations.
- Income does not play a significant role in predicting attention to different media channels (data not shown).
- Results can inform the planning, design and dissemination of health communication strategies in order to extend reach and understand potential exposure to health messages.

## References

- Hornik, R. (Ed.). (2002). Public Health Communication: Evidence for Behavior Change. New York: Lawrence Erlbaum.
- Viswanath, K., & Finnegan, J. R. (1996). The knowledge gap hypothesis: Twenty five years later. In B. Burlinson (Ed.), Communication Yearbook 19 (pp. 187-227). Thousand Oaks: Sage Publications.
- National Cancer Institute. (2012). Health Information National Trends Survey URL: <http://hints.cancer.gov/>
- Finney Rutten LJ, Davis T, Beckjord EB, Blake K, Moser RP, Hesse BW. (2012). Picking up the pace: changes in method and frame for the health information national trends survey (2011-2014). *Journal of Health Communication*, 17(8):979-989.

The content of this publication does not necessarily reflect the views or policies of the Department of Health and Human Services, nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. Government.