

hance our understanding of the relationships among message exposure, recall, comprehension, and characteristics (for example, type of appeal); media scheduling variables (for example, frequency, timing, channel); and the targeted knowledge, attitude, and behavior outcomes. The study's findings would have significant implications in regard to the effectiveness of media in reducing health-related risk behaviors or maintaining low-risk behaviors, or both.

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**Monitoring the Exposure of "America Responds to AIDS" PSA Campaign**

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**Synopsis** .....

*The "America Responds to AIDS" campaign is*

*the focal point of an integrated mass communications system for AIDS education and information dissemination developed by the National AIDS Information and Education Program of the Centers for Disease Control.*

*Television and radio public service announcements are an integral part of the campaign. One measure of their success is the extent to which they are aired on both national and local levels.*

*Since 1987, the total dollar value for air time donated to the "America Responds to AIDS" campaign is more than \$65 million, representing 47 percent of all donations of air time for AIDS public service announcements. These results suggest that the campaign has been successful in reaching a large proportion of the public.*

**E**STABLISHED IN 1987 by the Department of Health and Human Services (HHS), the National AIDS Information and Education Program (NAIEP) of the Centers for Disease Control (CDC), has developed an integrated mass communications system for the dissemination of AIDS education and information. Centerpiece of the

system is the "America Responds to AIDS" (ARTA) campaign. Public service announcements (PSAs) on television and radio are an integral part of the ARTA campaign.

The PSAs produced in each of ARTA's five phases contained varying amounts and types of information for both the general public and spe-

Table 1. Estimated number of spot announcements and dollar value of air time for ARTA compared with all other AIDS public service announcements (PSAs), October 1987-December 1990

Outlet	ARTA		All other AIDS	
	Dollars	Spots	Dollars	Spots
Network television...	\$45,976,269	3,298	\$54,965,487	4,763
Cable television.....	214,643	402	1,953,268	1,644
Network radio.....	8,086,120	2,446	1,079,320	326
Major spot markets..	5,945,993	15,377	10,761,950	26,195
Local spot markets..	5,223,833	35,724	4,577,926	31,411
Totals.....	\$65,446,858	57,247	\$73,337,951	64,339

NOTE: ARTA = America Responds to AIDS.  
SOURCE: Broadcast Advertisers Reports.

Table 2. Percentage distribution of spot announcements by time of day for ARTA compared with all other AIDS public service announcements (PSAs), October 1987-December 1990

Outlet	ARTA			All other AIDS		
	6-8	8-11	11-6	6-8	8-11	11-6
Network television..	24	7	69	21	11	68
Cable television.....	37	10	53	41	12	47
Network radio.....	51	14	34	34	13	53
Major and local spot markets.....	62	9	29	62	8	30
Totals.....	59	9	32	58	8	33

NOTE: Time segments are 6 a.m. to 8 p.m., 8 p.m. to 11 p.m., and 11 p.m. to 6 a.m. ARTA = America Responds to AIDS.  
SOURCE: Broadcast Advertisers Reports.

cific audiences and ranged in length from 10 to 60 seconds. One measure of the success of these PSAs is the extent to which television and radio stations donate air time for them. It is our purpose to describe a mechanism that gauges the level of exposure of PSAs nationally and locally, both for ARTA and all other AIDS PSAs produced by public agencies on the State level and by a host of organizations in the private sector that have been aired since October 1987.

## Methods

The Broadcast Advertisers Reports (BAR), a service that can be purchased from the Arbitron Corporation, monitors commercial advertising on television and radio stations. Results from this monitoring are made available to advertisers, advertising agencies, stations, networks, and other

subscribers in related industries (1). BAR will also monitor selected PSA activity at an additional cost. Agencies that produce PSAs can get detailed reports on PSA airings tailored to their particular needs. NAIEP has received these customized reports since October 1987 to monitor the level of airing given to ARTA PSAs and to all the other AIDS-related PSAs produced by numerous national, State, and local organizations (2). In addition to the customized reports, we receive monthly data on computer tape for further analyses.

BAR monitors advertisements on the three major television networks and six major cable television networks by recording the satellite transmissions to affiliated stations. It monitors the 75 top television markets throughout the United States by local taping. BAR also monitors 17 radio networks transmitted by six radio companies.

Network and cable television and network radio stations are monitored 24 hours a day, every day of the year. Additionally, stations in 17 of the 75 top television markets, referred to as "major spot markets," are monitored every day of the year from 7 a.m. to 1 a.m. New York, Los Angeles, and Chicago are monitored until 3 a.m. The stations in the other 58 markets, referred to as "local spot markets," are monitored from 7 a.m. to 1 a.m. during one randomly selected week each month. From these data, Arbitron uses proprietary methods to develop monthly estimates of the number of airings and their dollar value.

Network television, cable television, and network radio stations monitored are listed in box a. Spot market cities are provided alphabetically, by State, in box b. These 75 markets represent 80 percent of the U.S. households with television (3). With the exception of some local independent and educational stations, most stations in a given market are monitored.

For each PSA airing, the BAR data tape contains date, day of the week, and time of day shown; length of PSA; theme of PSA; name of show during which PSA appeared; market type, such as network or spot; and estimated commercial dollar value of the airing. For data from the 58 local spot markets that are monitored 1 week each month, we use a factor of 4.3 (the average number of weeks per month based on 52 weeks per year) to calculate monthly estimates.

## Results

Cumulative estimated dollar value and number of PSAs aired from October 1987 through Decem-

ber 1990 for ARTA and all other AIDS media campaigns are provided in table 1 by market type. ARTA represents 47 percent of both the dollar value and number of AIDS PSAs shown since October 1987. Distribution by time of day aired for ARTA and all other AIDS PSAs are provided in table 2.

PSAs are primarily being shown during late-night television on the national and cable networks. Both ARTA and other AIDS PSAs also receive substantial play during daytime hours, particularly in the spot markets. All other AIDS PSAs have received slightly higher network exposure than ARTA in what is known as television "prime time," 8 p.m. to 11 p.m. The majority of AIDS PSAs on network radio are played during daytime and late-night hours.

The total estimated number of donated airings for ARTA and all other AIDS PSAs, by year and campaign phase, are presented in the accompanying chart. The launch dates for each ARTA campaign phase are indicated by Roman numerals. The number of airings increases immediately following the launch of each new campaign phase and subsequently decreases over the next few months. The high point for the non-ARTA PSAs occurred in October 1987, with almost 3,000 airings.

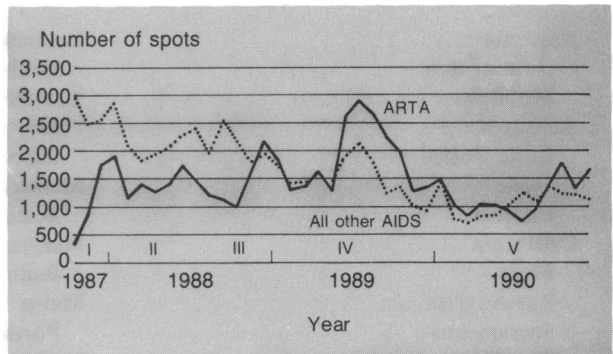
## Discussion

Data show that ARTA has been very successful in terms of the amount of air time donated by national and local television and radio broadcasters compared with the number of airings for all other AIDS PSAs combined. For the period 1987 to 1990, the total dollar value for air time donated to ARTA is more than \$65 million, representing 47 percent of all AIDS PSA donations. Television networks alone have provided an estimated \$46 million of air time to ARTA PSAs. Additionally, ARTA has received more than 50,000 airings to date in the major television markets, which cover nearly 80 percent of U.S. households with television (3).

These airings have occurred throughout the daytime and nighttime hours, providing potential exposure to a vast array of audiences. AIDS PSAs are aired predominantly during news shows; however, both ARTA and other AIDS PSAs have been shown on highly rated shows such as "Cosby," "Roseanne," "China Beach," and the National Football League playoff games.

The monthly data indicate a definite pattern in the number of ARTA airings. As mentioned previ-

Estimated number of donated spots for ARTA and all other AIDS PSAs, by year, all sources, 1987-90



SOURCE: Broadcast Advertisers Reports.

### (A) Network and Cable Television and Network Radio Stations Monitored by Broadcast Advertisers Reports

#### Network Television

- American Broadcasting Company (ABC)
- Columbia Broadcasting System (CBS)
- National Broadcasting Company (NBC)

#### Cable Television

- Cable News Network (CNN)
- Entertainment & Sports Programming Network (ESPN)
- The Family Channel (FAM)
- Music Television (MTV)
- TBS SuperStation in Atlanta (TBS)
- USA Cable Network (USA)

#### Network Radio

##### ABC

- ABC Contemporary Radio Network (ACR)
- ABC Direction Radio Network (ADR)
- ABC Entertainment Radio Network (AER)
- ABC FM Radio Network (AFR)
- ABC Information Radio Network (AIR)
- ABC Rock Radio Network (ARR)
- ABC Talkradio Network (ATR)

##### CBS

- CBS Radio Network (CRN)
- CBS Spectrum Radio Network (CSN)

##### MBS

- Mutual Radio Network (MRN)

##### NBC

- NBC Radio Network (NRN)
- The Source (NSC)
- Talknet (NTN)

##### SMI

- Satellite Music Network (SMN)

##### UNI

- Unistar Power Network (PWR)
- Unistar Super Network (SUP)
- Unistar Ultimate Network (ULT)

**(B) Major and Local Spot Markets Monitored by Broadcast Advertisers Reports, by State**

<b>Alabama</b>	<b>Kentucky</b>	Columbus
Birmingham	Louisville	Dayton
Mobile	<b>Louisiana</b>	Toledo
<b>Arkansas</b>	New Orleans	<b>Oklahoma</b>
Little Rock	Shreveport	Oklahoma City
<b>Arizona</b>	<b>Massachusetts</b>	Tulsa
Phoenix	Boston <sup>1</sup>	<b>Oregon</b>
<b>California</b>	<b>Maryland</b>	Portland
Fresno	Baltimore	<b>Pennsylvania</b>
Los Angeles <sup>1</sup>	<b>Maine</b>	Harrisburg
Sacramento	Portland	Philadelphia <sup>1</sup>
San Diego	<b>Michigan</b>	Pittsburgh <sup>1</sup>
San Francisco <sup>1</sup>	Detroit <sup>1</sup>	Wilkes-Barre
<b>Colorado</b>	Flint	<b>Rhode Island</b>
Denver <sup>1</sup>	Grand Rapids	Providence
<b>Connecticut</b>	<b>Minnesota</b>	<b>South Carolina</b>
Hartford	Minneapolis <sup>1</sup>	Charleston
<b>District of Columbia</b>	<b>Missouri</b>	<b>Tennessee</b>
Washington <sup>1</sup>	Kansas City	Knoxville
<b>Florida</b>	St. Louis	Memphis
Orlando	<b>North Carolina</b>	Nashville
Jacksonville	Raleigh	<b>Texas</b>
West Palm Beach	Charlotte	Dallas <sup>1</sup>
Miami <sup>1</sup>	Greensboro	Houston <sup>1</sup>
Tampa	Greenville	San Antonio
<b>Georgia</b>	<b>Nebraska</b>	<b>Utah</b>
Atlanta <sup>1</sup>	Omaha	Salt Lake City
<b>Iowa</b>	<b>New Mexico</b>	<b>Virginia</b>
Cedar Rapids	Albuquerque	Norfolk
Des Moines	<b>New York</b>	Richmond
<b>Illinois</b>	Albany	Roanoke
Springfield	Buffalo	<b>Washington</b>
Chicago <sup>1</sup>	New York <sup>1</sup>	Seattle <sup>1</sup>
<b>Indiana</b>	Rochester	Spokane
Indianapolis	Syracuse	<b>Wisconsin</b>
<b>Kansas</b>	<b>Ohio</b>	Green Bay
Wichita	Cincinnati	Milwaukee
	Cleveland <sup>1</sup>	

<sup>1</sup>Major spot market.

ously, airtime increases following the release of a new campaign phase. The launch of each phase is accompanied by increased marketing by NAIEP at both national and local levels—an effort that apparently is effective. Air time fell to its lowest point just before the launch of phase 5. The 14-month lag time between the launch of phases 4 and 5 was twice the time between any of the other phases. These data suggest that, to maintain post-launch exposure rates, new campaign materials are needed at least every 6 months, or if a new campaign phase is not anticipated during that time frame, then intense repeat marketing efforts should be considered for 5 to 6 months after a campaign launch.

The monthly exposure for all other AIDS PSAs presents a slightly different picture. CDC does not have data to determine new campaign launches for other AIDS programs and, therefore, cannot hypothesize about the cause of the increases and decreases. However, exposure for all other AIDS PSAs has gradually decreased over time and has ranged from a high of nearly 3,000 airings in October 1987 to a low of around 1,200 by December 1990.

Unlike paid advertisements, where anything aired on the national networks is automatically broadcast by the network affiliate stations, there is no such guarantee for PSAs. The fact that a PSA is aired on TV or radio does not mean the PSA was seen or heard. It is encouraging, however, that during the last 3 months of 1989, 80 percent of adults in the United States reported seeing an AIDS-related PSA on television, and 45 percent reported hearing a PSA about AIDS on the radio during the past month (3). In 1990, 80 percent of adults reported that they had received information about AIDS from television during the past month (4).

*'It is encouraging ... that during the last 3 months of 1989, 80 percent of adults in the United States reported seeing an AIDS-related PSA on television, and 45 percent reported hearing a PSA about AIDS on the radio during the past month. In 1990, 80 percent of adults reported that they had received information about AIDS from television during the past month.'*

Health communication strategies that include successful PSA campaigns remain an important component of the HIV prevention effort. As measured by the number of airings and their associated dollar value, ARTA is successful.

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