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Brief Original Report

Life cycle of television public service announcements disseminated through donated airtime

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ABSTRACT

Objective. To investigate the longevity and reach of television public service announcements (PSAs) developed by the Centers for Disease Control and Prevention's *Screen for Life: National Colorectal Cancer Action Campaign*.**Methods.** Television airtime donated to *Screen for Life* PSAs was tracked, and the impressions (a broadcasting metric for audience size) generated by PSAs in circulation ≥ 5 years were analyzed in 2014. The sample consisted of 8 PSAs, including English and Spanish PSAs, PSAs featuring celebrities, and PSAs redistributed multiple times after their initial release.**Results.** During the most recent year of circulation (5–9 years after initial release), each PSA generated 15.7 million to 251.7 million impressions. Peak annual impressions were achieved as late as 9 years after a PSA's initial release. When PSAs were redistributed 2 years or longer after the prior distribution, annual impressions increased over the preceding year by > 20 million in 80.0% of instances. Among English PSAs, those featuring celebrities produced the highest mean and peak annual impressions.**Conclusions.** Donated-placement television PSAs can be a long-lived health promotion strategy. Redistribution may enhance PSA longevity, and featuring celebrities, particularly in English PSAs, may expand reach.© 2015 The Authors. Published by Elsevier Inc. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Introduction

Television public service announcements (PSAs) that rely on donated airtime have been widely used to disseminate health promotion messages in the United States (Gantz et al., 2008). However, demand for donated media placements far exceeds availability. Currently, U.S. broadcasters are not required to air PSAs. Instead, the Federal Communications Commission (FCC) instructs them to operate in the “public interest, convenience and necessity,” and many programming options can satisfy this requirement (Federal Communications Commission, 2008). Little is known about the longevity and reach of television PSAs that rely on donated airtime.

Since launching in 1999, the Centers for Disease Control and Prevention's *Screen for Life: National Colorectal Cancer Action Campaign* (Centers for Disease Control and Prevention, 2015) has produced PSAs in English and Spanish encouraging colorectal cancer screening for people aged 50 years and older. *Screen for Life* television PSAs have been

disseminated exclusively through donated media placements. To promote airplay of its television PSAs, *Screen for Life* uses a variety of strategies, such as featuring celebrities and periodically redistributing PSAs already in circulation (Cooper et al., 2013). The current study investigated the life cycle of *Screen for Life* television PSAs.

Methods

This study was limited to *Screen for Life* television PSAs in circulation for ≥ 5 years and included English and Spanish PSAs, PSAs featuring celebrities, and PSAs redistributed multiple times after their initial release (Table 1).







Screen for Life PSAs are extensively tested with target audiences, and their central message is that men and women should be regularly screened for colorectal cancer beginning at age 50 and that screening helps prevent colorectal cancer. Celebrities featured in PSAs donated their time to the campaign, and their selection was based on a variety of factors, including their personal connection to colorectal cancer (Cooper et al., 2015).

Each PSA analyzed was distributed in multiple lengths, typically 30- and 60-second versions, but also 15- and 20-second versions in some cases. The initial release of the PSAs analyzed, as well as their subsequent redistributions, involved delivery to national television

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Table 1
Screen for Life television PSAs in circulation for ≥5 years, 2005–2014.

Title	Screen capture	Description	Years in circulation (release date)	Language	Impressions ^a			Redistribution years ^b
					Cumulative	Mean annual	Peak annual (year achieved)	
Picture of Health		Actor Morgan Freeman urges people aged 50 and older to get screened, even if they have no symptoms.	9 (March 2005)	English	586,322,146	65,146,905	205,010,553 (Year 2)	Year 2 Year 4
Being There/Estando Alli		Grandparents and grandchild enjoy time together, while an announcer describes how colorectal cancer screening may have saved the grandfather's life.	9 (March 2005)	English	342,490,262	38,054,474	62,170,219 (Year 6)	Year 2 Year 5
				Spanish	452,681,719	50,297,969	75,896,128 (Year 3)	Year 2 Year 5
Rosa y Carlos		A couple explain how screening for colorectal cancer may have saved the husband's life and encourage others to get tested.	9 (March 2005)	Spanish	1,429,753,974	158,861,553	251,727,801 (Year 9)	Year 2 Year 3 Year 4 Year 5 Year 8
Grammy Keaton		Actress Diane Keaton talks about the death of her grandmother from colorectal cancer and explains that colorectal cancer is preventable.	7 (August 2006)	English	559,935,198	79,990,743	129,497,521 (Year 2)	Year 2 Year 3 Year 4
The Screening/La Vida Real		Actor Jimmy Smits reveals he has been screened for colorectal cancer and encourages viewers aged 50 and older to follow his example.	7 (April 2007)	English	636,401,523	90,914,503	368,220,964 (Year 6)	Year 2 Year 6
				Spanish	395,470,678	56,495,811	96,012,951 (Year 2)	Year 2 Year 3 Year 6 Year 7
This Is Personal		Actor Terrence Howard discusses his mother's death from colon cancer at age 56.	5 (April 2009)	English	466,130,954	93,226,191	157,555,344 (Year 2)	none

Abbreviation: PSA = public service announcement. The listed PSAs can be viewed online at www.cdc.gov/cancer/colorectal/sfl/tv_psa.htm.

^a Impressions refer to the estimated number of times PSAs were seen by viewers and are derived from audience size estimates provided by The Nielsen Company (New York, NY); annual impressions were calculated in 12-month intervals from each PSA's release date up to May 2014.

^b Bolded years indicate that impressions increased >10 million during the year in which redistribution occurred compared with the previous year; only one increase <10 million occurred—the year 5 redistribution of *Estando Alli* was associated with an increase of 367,072 impressions.

networks, 5000 network-affiliated and local television stations, and national, regional, and local cable systems. Before distribution, each PSA was encoded with a unique electronic signal. When a PSA aired, monitoring devices in all 210 U.S. media markets (The Nielsen Company, 2014) recorded the signal. Each airplay was linked to an estimate provided by

the Nielsen Company (New York, NY) of impressions or the audience size during the time in which a PSA aired. Thus, impressions in aggregate refer to the estimated number of times viewers saw a PSA.

Annual impressions were calculated in 12-month intervals from each PSA's release date up to May 2014. Cumulative impressions were

calculated by summing annual impressions. Mean annual impressions were calculated by dividing cumulative impressions by the number of years in which a PSA had been in circulation. The data were analyzed in July 2014.

Results

During the most recent year of circulation, impressions generated by individual PSAs ranged from 15.7 million (*Picture of Health*, Year 9) to 251.7 million (*Rosa y Carlos*, Year 9) (Fig. 1). Peak annual impressions ranged from 62.2 million (*Being There*, Year 6) to 368.2 million (*The Screening*, Year 6), and occurred most commonly in Year 2 for celebrity PSAs (*Picture of Health*, *Grammy Keaton*, *La Vida Real*, and *This Is Personal*) (Table 1). No consistency was observed in the timing of peak annual impressions among non-celebrity PSAs (*Being There*, Year 6; *Estando Alli*, Year 3; *Rosa y Carlos*, Year 9).

Overall, redistribution was associated with a >10 million increase in annual impressions over the previous year in 13 of 20 instances (65.0%). When a PSA was redistributed 2 years or longer after the prior distribution, annual impressions increased >20 million in 4 out of 5 instances (80.0%). The most successful redistribution occurred when *The Screening* was rereleased in Year 6 and received repeated placements on a national cable channel (annual impressions increased by 352.2 million over the prior year).

All four English PSAs that featured celebrities, *Picture of Health*, *Grammy Keaton*, *The Screening*, and *This Is Personal*, outperformed the only non-celebrity English PSA, *Being There*, in terms of mean and peak annual impressions. Conversely, the Spanish PSA with the highest mean and peak annual impressions, *Rosa y Carlos*, did not feature a celebrity. Further, the non-celebrity Spanish PSA, *Estando Alli*, performed comparably in terms of mean annual impressions to *La Vida Real*, which featured actor Jimmy Smits.

A celebrity PSA, *Picture of Health*, and a non-celebrity PSA, *Being There*, were released simultaneously in the same language only once during the period analyzed. Initially, *Picture of Health*, which featured actor Morgan Freeman, dramatically outperformed *Being There*. Following

redistribution in Year 5, *Being There* surpassed *Picture of Health* in annual impressions and has since continued to outperform it. However, in terms of cumulative impressions, *Picture of Health* (586.3 million) surpassed *Being There* (342.5 million).

Discussion

Television PSAs can be a long-lived health promotion strategy. Each of the PSAs studied continued to generate millions of impressions despite having been in circulation for 5–9 years.

Given the absence of an experimental design in the current study, it is not possible to draw definitive conclusions about the relative performance of the different types of PSAs analyzed. However, several trends were noted which might be tested in future studies. Annual impressions were generally higher following the redistribution of PSAs compared with the preceding year, particularly when redistribution occurred 2 years or longer after the prior distribution. In addition, celebrity PSAs typically reached peak annual impressions earlier than non-celebrity PSAs. Further, some interaction between celebrity appeal and language was observed—a celebrity presence was associated with better performance among English PSAs, but not among Spanish PSAs.

The PSAs analyzed were produced by an established national campaign. Thus, these results may not be typical. While the present study was based on verified broadcasts of PSAs, the impressions generated were derived from estimated audience sizes. While a useful metric to compare the relative reach and longevity of PSAs, impressions should not be interpreted as a proxy for actual viewing or retention. Real-world recall of *Screen for Life* PSAs has not been well studied, but a national survey found that 8.3% of women aged 50–75 years recalled exposure to *Screen for Life* PSAs featuring actor Terrence Howard (Cooper et al., 2015).

There is evidence that PSAs can influence colorectal cancer screening behavior. A 2012 survey of U.S. adults aged 50 years and older found that advertisements were the second leading source of colorectal cancer screening information, after news reports, and that the likelihood of

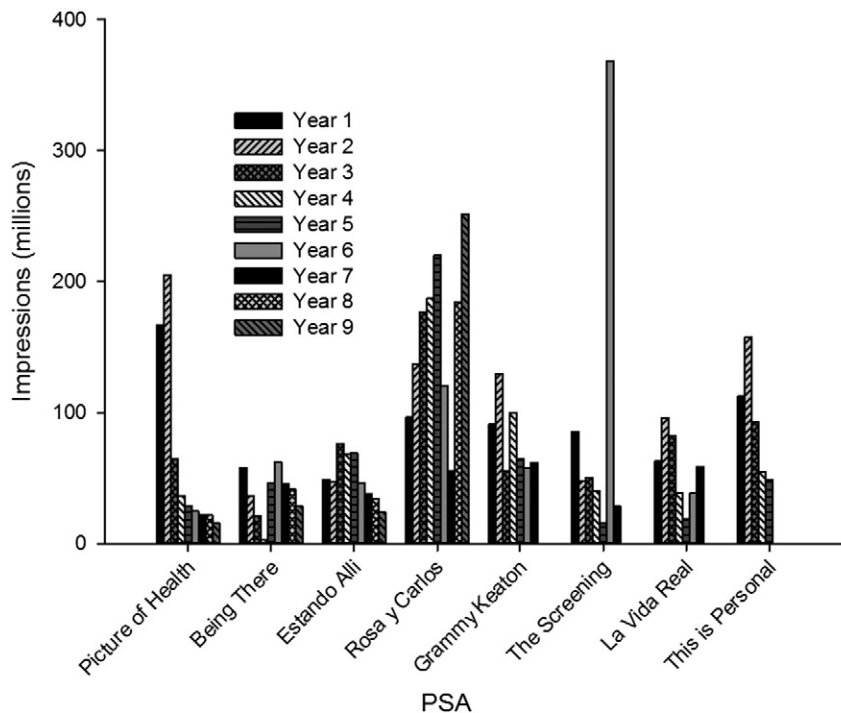


Fig. 1. Annual impressions generated by *Screen for Life* television PSAs in circulation for ≥ 5 years, 2005–2014. Note. PSA = public service announcement. PSAs can be viewed online at www.cdc.gov/cancer/colorectal/sfl/tv_psa.htm. Impressions refer to the estimated number of times PSAs were seen by viewers and were derived from audience size estimates provided by The Nielsen Company (New York, NY); annual impressions were calculated in 12-month intervals from each PSA's release date up to May 2014.

screening participation rose steadily with increasing exposure to screening promotion messages (Cooper et al., 2014).

Despite growth in time-shifted and online viewing, regularly-scheduled television remains the primary source of video content consumed by U.S. adults (The Nielsen Company, 2013). The present study demonstrates that television PSAs can achieve long shelf lives. Though the airtime to disseminate PSAs is donated, there can be significant costs associated with pretesting, production, distribution, and tracking. Nevertheless, this investment can produce a positive, long-term return, which may be augmented by periodic redistribution and featuring celebrities, particularly in English PSAs.

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Conflict of interest

The authors declare that there are no conflicts of interests.

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References

- Centers for Disease Control and Prevention, 2015. Screen for Life: National Colorectal Cancer Action Campaign. www.cdc.gov/cancer/colorectal/sfl Accessed February 8, 2015.
- Cooper, C.P., Gelb, C.A., Chu, J., Polonec, L., 2013. Can donated media placements reach intended audiences? *Health Promot. Pract.* 14 (5), 656–662.
- Cooper, C.P., Gelb, C.A., Hawkins, N.A., 2014. How many “get screened” messages does it take? Evidence from colorectal cancer screening promotion in the United States, 2012. *Prev. Med.* 60, 27–32.
- Cooper, C.P., Gelb, C.A., Lobb, K., 2015. Celebrity appeal — reaching women to promote colorectal cancer screening. *J Women's Health* 24 (3), 169–173.
- Federal Communications Commission, 2008. The Public and Broadcasting. <http://www.fcc.gov/guides/public-and-broadcasting-july-2008> (Accessed February 8, 2015).
- Gantz, W., Schwartz, N., Angelini, J.R., Rideout, V., 2008. Shouting to be Heard (2): Public Service Advertising in a Changing World. Henry J. Kaiser Family Foundation, Menlo Park, CA (<http://kff.org/other/shouting-to-be-heard-2-public-service>). Accessed February 20, 2015).
- The Nielsen Company, 2013. An Era of Growth: The Cross-Platform Report Q4 2013. www.nielsen.com/us/en/insights/reports/2014/an-era-of-growth-the-cross-platform-report.html (Accessed February 8, 2015).
- The Nielsen Company, 2014. Nielsen 2014–2015 DMA Ranks. www.tvb.org/research/measurement/131627 (Accessed December 7, 2014).