Media campaigns to promote smoking cessation among socioeconomically disadvantaged populations: What do we know, what do we need to learn, and what should we do now

Niederdeppe J, Kuang X, Crock B, Skelton A

CRD summary
The review concluded that media campaigns to promote smoking cessation at overall population level were often less effective, sometimes equally effective and rarely more effective among disadvantaged populations relative to more advantaged populations. The authors’ conclusions appear reasonable, but the interpretation and reliability of the findings was unclear due to the poor reporting of the review methods and included data.

Authors’ objectives
To evaluate the effectiveness of media campaigns to promote smoking cessation among low socio-economic smokers.

Searching
PubMed and Communication Abstracts were searched for articles published after 1990. Search terms were reported. Reference lists of reviews and retrieved articles were scanned for relevant studies.

Study selection
Studies that evaluated media campaigns to promote smoking cessation among adults (aged 18 years or over) in USA and countries with comparable political systems and demographic profiles were eligible for inclusion. Studies had to compare interventions aimed at smokers in high versus low socio-economic smoker groups, or compare interventions aimed at the general population with those aimed at low socio-economic smokers, African American smokers and/or Hispanic smokers. Media campaigns were defined as any smoking cessation campaign or intervention that used the media (advertising, media advocacy, direct marketing) to publicise a programme, promote the use of services or persuade smokers to quit. A low socio-economic smoker population was defined as more than half the sample having less than $25,000 as an annual income. A low education sample was defined as more than half the sample with a high school diploma or less.

Media interventions included in the review included free nicotine replacement therapy (NRT) promotion, anti-smoking campaigns, state programmes, quit lines, community coalitions, smoking and pregnancy campaigns and tailored interventions. Most included studies were part of larger multi-component interventions. Participants were high and low socio-economic smokers and included African American and Hispanic participants and pregnant women. Outcomes assessed included quit rates of varying durations, decline in smoking rates, relapse rates, smoking prevalence, assessment of media recall and motivational response.

The authors stated neither how papers were selected for the review nor how many reviewers performed the selection.

Assessment of study quality
The authors did not state that they assessed validity.

Data extraction
Data were extracted on outcomes that included rates of smoking, quitting, relapse and smoking prevalence. When smoking or quit rates were reported at multiple time points, the last time point was taken as the primary cessation outcome.

The authors stated neither how data were extracted nor how many reviewers performed the extraction.

Methods of synthesis
Studies were grouped into categories of general population campaigns or targeted media campaigns and combined in a narrative synthesis. Additional information was provided in tables. Further details on categorisation were reported in the
Results of the review
Thirty-one studies (n=unknown) were included in the review.

General population media campaigns (18 studies): Nine studies were less effective among lower socio-economic smokers compared with higher socio-economic smokers and were likely to increase disparities in smoking cessation by socio-economic smokers. Four studies reported less effectiveness among lower socio-economic smokers for a low-cost self-help campaign. One campaign aimed at reducing cardiovascular disease was less effective in reducing smoking rates among less educated smokers. Two media campaigns were less effective among lower socio-economic smokers compared with higher socio-economic smokers in promoting telephone calls to smoking quit lines. Two media campaigns were equally effective in promoting quit line calls by low socio-economic smokers, but these campaigns were more successful for higher socio-economic smokers for long-term quit rates among callers. Six media campaigns reported being equally effective in promoting smoking cessation among both low and high socio-economic groups, but were not likely to have reduced disparities in smoking cessation between socio-economic groups. Three media campaigns reported greater effectiveness among low socio-economic smokers compared with high socio-economic smokers.

Media campaigns targeted at low socio-economic smokers (African American or Hispanic) (13 studies): No studies provided equivocal evidence that media campaigns maintained cessation among socio-economically disadvantaged smokers. Eight studies provided mixed evidence of effectiveness in promoting smoking cessation, including three studies conducted among low socio-economic African American smokers and four studies among low socio-economic Hispanic smokers. Five studies reported that targeted media campaigns were unsuccessful among low socio-economic smokers, which included rural, female blue-collar employees, pregnant women and African American smokers.

Authors’ conclusions
There was considerable evidence that media campaigns to promote smoking cessation at the overall population level were often less effective, sometimes equally effective and rarely more effective among disadvantaged populations relative to more advantaged populations. Many of these campaigns could have the unintended effect of increasing or maintaining existing disparities in smoking rates and the mortality burden of tobacco by socio-economic status.

CRD commentary
Inclusion criteria were clearly defined for intervention, participants and outcomes, but were not defined for study design. Some relevant sources were searched, but no attempts were made to reduce publication bias. It was unclear whether language limitations were applied. Methods used to select studies and extract data were not described and so it was not known whether efforts were made to reduce reviewer errors and bias. Some characteristics of the included studies were presented in tables; however, types of study designs used and validity of the studies were not reported, which made it difficult to assess the reliability of the data. Results were often reported without supporting data and assessments of statistical significance. The authors reported that due to their search strategy focusing particularly on African American and Hispanic smokers, other low socio-economic groups may have been excluded. Most included studies reported on media campaigns that were part of larger multi-component programs; therefore, the authors correctly commented on the difficulty of attribution of effects solely to media campaigns. A narrative review was appropriate given the differences between studies in terms of interventions, outcomes and participants. The authors’ conclusions appear reasonable, but the interpretation and reliability of the findings was unclear due to the poor reporting of the review methods and included data.

Implications of the review for practice and research
Practice: The authors stated that promotion of self-help materials or quit-to-win contests should not be conducted in isolation. Media campaigns should strive to ensure wide exposure, including paid media campaigns, earned media coverage, donated media time and direct marketing. These should be combined, where possible, with other tobacco control program components. In addition when designing messages, media campaigns should consider the literacy needs, language preferences and cultural values of low socio-economic smokers.

Research: The authors stated that future research should compare effects of media campaigns for smoking cessation by
socio-economic status and test for differences at multiple stages of response. There was also a need to develop theoretical frameworks to understand campaign effects among low socio-economic smokers. Research should be conducted to understand the media use preferences and health-related behaviour among low socio-economic smokers to understand motivation and ensure adequate exposure.

**Funding**

**Bibliographic details**
Niederdeppe J, Kuang X, Crock B, Skelton A. Media campaigns to promote smoking cessation among socioeconomically disadvantaged populations: What do we know, what do we need to learn, and what should we do now. Social Science and Medicine 2008; 67(9): 1343-1355

**PubMedID**
18691793

**DOI**
10.1016/j.socscimed.2008.06.037

**Original Paper URL**
http://dx.doi.org/10.1016/j.socscimed.2008.06.037

**Indexing Status**
Subject indexing assigned by NLM

**MeSH**
Health Promotion /methods; Healthcare Disparities; Humans; Mass Media; Smoking Cessation; Social Class

**AccessionNumber**
12009100665

**Date bibliographic record published**
07/04/2009

**Date abstract record published**
20/01/2010

**Record Status**
This is a critical abstract of a systematic review that meets the criteria for inclusion on DARE. Each critical abstract contains a brief summary of the review methods, results and conclusions followed by a detailed critical assessment on the reliability of the review and the conclusions drawn.