Mass media interventions: Evidence and implications for public health

Review Focus

**P**  Health care professionals, patients and the general public

**I**  Mass media campaigns (e.g. leaflets, radio, newspaper and television ads, etc.), *not* including internet

**C**  No intervention

**O**  *Primary Outcomes:* Change in health services utilization, including initiatives concerning the use of drugs, surgical procedures, and diagnostic tests.

**Review Quality Rating:** 6 (moderate) *Details on the methodological quality are available here.*

Considerations for Public Health Practice

**Conclusions from Health Evidence**

This is a moderate quality review based on studies of poor to moderate quality.

Review authors performed the regression analyses that were missing from the majority of included studies, and determined that only 7/20 of the studies actually achieved a statistically significant effect.

Current evidence is mixed, regarding:

- use of mass media campaigns for early detection of skin cancer and increasing rates of skin cancer diagnoses;
- the effectiveness of mass media campaigns to increase HIV testing in the general population;
- the impact of mass media campaigns to increase HIV testing among those at high-risk of HIV infection

The length of mass media campaigns varied (one week to four years) and most campaigns used TV, radio and newspaper/magazine advertisement *plus* printed materials/promotional posters. This may lead to different outcomes than those observed in this review.

**General Implications**

Based on this review, public health should support the use of mass media campaigns (excluding internet) to:

- increase measles/mumps/rubella (MMR) vaccinations
- increase in uptake of Pap smear, especially in women 20-29 years of age in the short-term
- increase in the mean number of patient-initiated consultations for skin cancer in the short-term
- influence health service utilization

Public health should not:

- promote short term mass media campaigns to reduce childhood poisoning
- rely on general colorectal cancer education as a way to increase rates of colorectal cancer diagnoses
- support the use of mass media to reduce the delay in admission to hospital with suspected myocardial infarction

Public health should consult more current, higher quality research (www.healthevidence.org) when planning program and policy.

Evidence and Implications

<table>
<thead>
<tr>
<th>Evidence and Implications</th>
<th>Implications for practice and policy</th>
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<tbody>
<tr>
<td><strong>1. Childhood poisoning (1 study)</strong></td>
<td>1. Public health decision makers should not promote the use of short-term media campaigns to decrease the incidence of child poisoning at this time.</td>
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<td>- No impact on # of hospitalizations among children for poisoning with a 3-week media campaign (press, TV, radio, etc.)</td>
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<td><strong>2. Immunizations (2 studies)</strong></td>
<td>2. Public health should use of mass media campaigns as an effective means of increasing immunization rates, particularly for MMR.</td>
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<td>- A 4-week mass media campaign increased attendance to measles/rubella immunization clinics, and mass media + physician/parent notification increased MMR immunization.</td>
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<td><strong>3. Cancer screening (8 studies)</strong></td>
<td>3. Public health decision makers should consider the</td>
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</table>

behaviours through mass media communication, therefore knowledge of its impact is needed. A fundamental component of current public health strategy is to inform the public about health in a broad and accessible manner. Media, if appropriate, can be used to promote healthy behaviours and discourage unhealthy behaviours. The use of media in public health attempts to achieve three things: disseminating correct knowledge on lifestyle behaviours, changing health attitudes and values, and establishing new health behaviours. Media mass media campaigns to increase Pap smear uptake, particularly among women 20-39 years of age, the rates of early diagnosis of malignant melanomas (while noting that the effect is inconsistent), and the number of patient-initiated skin consultations.

A one-week, skin cancer multimedia campaign led to a positive change (+4.4) in the mean # of patient-initiated consultations at six weeks post-intervention.

Mass media and printed educational materials on colorectal cancer, decreased (absolute change -6.0) the mean # of colorectal cancers diagnosed after 7 months follow-up.

No impact on overall melanoma diagnoses or number of doctor-initiated skin consultations.

A nationwide mass media campaign for the general public led an increased # of HIV tests taken (+81.1) among average risk individuals.

No impact on # of counseling hours and # of blood submissions for HIV with mass media reporting of a celebrity’s HIV+ status.

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Why this issue is of interest to public health in Canada

The media is a consistent part of everyday life, and mass media is used at all levels of population health. From television and radio to news print and pamphlets, information can be accessed by all age groups. Media, if appropriate, can be used to promote healthy behaviours and discourage unhealthy behaviours. The use of media in public health attempts to achieve three things: disseminating correct knowledge on lifestyle behaviours, changing health attitudes and values, and establishing new health behaviours. Media mass media campaigns to increase Pap smear uptake, particularly among women 20-39 years of age, the rates of early diagnosis of malignant melanomas (while noting that the effect is inconsistent), and the number of patient-initiated skin consultations.

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4. HIV education (2 studies)

- A nationwide mass media campaign for the general public led an increased # of HIV tests taken (+81.1) among average risk individuals.
- No impact on # of counseling hours and # of blood submissions for HIV with mass media reporting of a celebrity’s HIV+ status.

5. Hospital admissions (2 studies)

- No impact on the # of patients with suspected myocardial infarction seeking emergency department care, but overall emergency department visits increased.

6. Health-related topics and health service use (5 studies)

- Media coverage of health-related topics (e.g. new, more effective drugs; breast conserving surgery) led to change (increase/decrease) in service use.

4. HIV education

- Public health may use mass media campaigns to increase the overall number of HIV tests performed in the general public, but other interventions should be explored to reach high-risk populations.

5. Hospital admissions

- Public health should not support the use of mass media to reduce delay in seeking care amongst those actually experiencing a myocardial infarction.

6. Health-related topics and health service use

- Public health decision makers should note that media coverage of health-related topics influences health service utilization.

** Legend: ** P – Population; I – Intervention; C – Comparison group; O – Outcomes; CI – Confidence Interval; OR – Odds Ratio; RR – Relative Risk; Mean

** For definitions see the healthevidence.org glossary http://www.healthevidence.org/glossary.aspx

Other quality reviews on this topic are available on www.healthevidence.org

Suggested citation


This evidence summary was written to condense the work of the authors of the review referenced on page one. The intent of this summary is to provide an overview of the findings and implications of the full review. For more information on individual studies included in the review, please see the review itself.

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