Appendix

This appendix was part of the submitted manuscript and has been peer reviewed. It is posted as supplied by the authors.

Effect of a mass media campaign on ambulance use for chest pain

Supplementary Appendix
Description of the Heart Foundation’s “Warning Signs” Campaign

In October 2009, the Heart Foundation of Australia piloted the 'Warning Signs of Heart Attack' mass media campaign in metropolitan Melbourne. The campaign used a multifaceted media strategy incorporating a range of digital and press mediums, including television, radio, newspaper, and social media components. A dedicated ‘Warning Signs’ website and social media page were also central components of the campaign, and allowed people to interactively learn the warnings signs of a heart attack and download an “action plan” that provided patients with factual advice on what to do in the event of suspected AMI prodromal symptoms (see Figure S1). The campaign was aimed at improving the community’s awareness of the prodromal symptoms associated with an AMI, but also addressed several barriers to taking immediate action, including the risks associated with ignoring symptoms and the perception that symptoms are not serious enough to warrant calling an ambulance. The campaign also targeted community attitudes towards AMI symptoms by seeking to increase the number of people who would follow a heart attack action plan in the event of an emergency. The campaign targeted community awareness of chest pain and other anginal equivalent symptoms such as arm, shoulder, neck, jaw or back pain. Examples of the television advertisements can be found online (https://www.youtube.com/playlist?list=PLhrygLMD00Es2sAsGr3eANWNNqviXHcaZR).

Between 11th October 2009 and 3rd August 2013, a total of 294 campaign days were delivered across Melbourne (see Table S1). As campaign funding was not assured throughout the study period, patterns of campaign exposure varied. In 2009 and 2013, mass media interventions were delivered in single continuous blocks lasting 56 days and 91 days respectively. In 2011 and 2012, exposure to the campaigns were staggered across the year in 7 to 14 day periods. In 2010, there was a combination of a single intensive 21 day block and staggered periods lasting 7 days. In addition, other pro bono initiatives including stories in newspapers and distribution of promotional materials also took place during these periods. The purchasing of media was based on a concept called 'target audience rating points' or TARPS, which describes the proportion of
the target audience which is likely to be exposed to the campaign. The primary target audience of the campaign was men and women aged between 45-64 years old.

<table>
<thead>
<tr>
<th>Year</th>
<th>Days with campaign activity</th>
<th>Media type</th>
<th>Max TARPs †</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>No campaign activity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>11th October to 5th December (56 days)</td>
<td>Television, Radio &amp; Press</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>18th July to 7th August (21 days)</td>
<td>Television &amp; Radio</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td>15th August to 21st August (7 days)</td>
<td>Television &amp; Press</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>5th September to 11th September (7 days)</td>
<td>Television &amp; Press</td>
<td>35</td>
</tr>
<tr>
<td>2010</td>
<td>26th September to 2nd October (7 days)</td>
<td>Television &amp; Press</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>14th November to 20th November (7 days)</td>
<td>Television &amp; Radio</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>5th December to 11th December (7 days)</td>
<td>Television &amp; Radio</td>
<td>35</td>
</tr>
<tr>
<td>2011</td>
<td>16th October to 22nd October (7 days)</td>
<td>Television only</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>6th November to 12th November (7 days)</td>
<td>Radio only</td>
<td>10</td>
</tr>
<tr>
<td>2012</td>
<td>29th January to 11th February (14 days)</td>
<td>Television &amp; Radio</td>
<td>90</td>
</tr>
<tr>
<td></td>
<td>22nd April to 5th May (14 days)</td>
<td>Television &amp; Radio</td>
<td>90</td>
</tr>
<tr>
<td></td>
<td>1st July to 14th July (14 days)</td>
<td>Television &amp; Radio</td>
<td>90</td>
</tr>
<tr>
<td></td>
<td>16th September to 23rd September (14 days)</td>
<td>Television &amp; Radio</td>
<td>90</td>
</tr>
<tr>
<td></td>
<td>18th November to 1st December (14 days)</td>
<td>Television &amp; Radio</td>
<td>90</td>
</tr>
<tr>
<td>2013</td>
<td>5th May to 3rd August (91 days)</td>
<td>Television &amp; Radio</td>
<td>60</td>
</tr>
</tbody>
</table>

† Maximum target audience rating points (TARPs) during period of interest for any one media type.
Figure S1: Heart Foundation’s “Warning signs” action plan.

Will you recognise your heart attack?

Do you feel any
- pain
- pressure
- heaviness
- tightness

In one or more of your
- chest
- neck
- jaw
- arm/s
- back
- shoulder/s

You may also feel
- nauseous
- a cold sweat
- dizzy
- short of breath

**Yes**

1 **STOP** and rest now

2 **TALK** Tell someone how you feel

If you take angina medicine
- Take a dose of your medicine.
- Wait 5 minutes. Still have symptoms? Take another dose of your medicine.
- Wait 5 minutes. Symptoms won’t go away?

Are your symptoms severe or getting worse?

or

Have your symptoms lasted 10 minutes?

**Yes**

3 **CALL 000** Triple Zero

- Ask for an ambulance.
- Don’t hang up.
- Wait for the operator’s instructions.

*If calling Triple Zero (000) does not work on your mobile phone, try 112.

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Figure S2: Impact of campaign activity on the absolute change in mean monthly ambulance attendances for various clinical presentations as assessed by paramedics. Clinical presentations represent the principal paramedic diagnosis for each patient, and are mutually exclusive with the exception of ST-Elevation Myocardial Infarction which represents a subset of Acute Coronary Syndrome presentations. Figure ranked from highest to lowest absolute change.