

Encouraging early treatment of suspected heart attack: it's OK to call 000

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Making urgent decisions is complex: a campaign recognising this has succeeded in raising public awareness

Multiple studies have shown that early reperfusion of the occluded coronary artery can save the lives of patients with an acute heart attack.¹ Focusing on removing barriers to treatment once the patient is in medical care has been effective in reducing in-hospital delays.² However, improving recognition of the symptoms of a possible heart attack and reducing the delay between the onset of symptoms, calling an ambulance, and getting to hospital have been less successful.³

The task of improving community recognition of the symptoms of a possible heart attack and triggering early action, even with intense media campaigns, has proved to be far more challenging than imagined by early researchers and heart health advocates.⁴ International experience was reflected in the early Australian campaigns.⁵ A systematic review of these campaigns⁶ concluded in 2007 that fact- and information-based campaigns would continue to be ineffective, and that a new approach was required. Better appreciation of the signs and symptoms of heart attack and a more sophisticated understanding of the psychological barriers to action were needed to underpin future campaigns. Lessons from behavioural research indicated that the decision to act can be complex, and that a friend, family member or workmate may be more pro-active than the patient themselves in initiating action to call for an ambulance.

This analysis resulted in recommendations to the National Heart Foundation of Australia⁶ and the formulation of a well funded national campaign centred on developing and promulgating an "action plan" for heart attack.⁷ The action plan comprised three steps: "STOP and rest now" when symptoms of a possible heart attack occur; "TALK and tell someone how you feel", to share the possible crisis; and "CALL 000" for an ambulance, a simple one-point action. This campaign was rolled out in 2009 with repeated waves through 2013, accompanied by an evidence-based television mass media campaign that focused on recognising symptoms, and included an emotive appeal for early action with the message, "It's OK to call 000". The scheduling of the advertisements was based on evidence about the media weights required for achieving the desired community response.⁸

In this issue of the *MJA*, the impact of this new style of campaign is assessed.⁹ Nehme and colleagues studied ambulance use in Victoria during the rollout of the campaign. The pattern of ambulance use for chest pain over the 5-year period from 2008 (the year before commencement of the campaign) to 2013 was correlated with the waves of campaign activity. More than one-quarter of a million calls regarding non-traumatic chest pain were analysed. The authors found a statistically significant increase in calls about chest

pain during campaign months, and an even greater increase when the following two months were also included. While there was an increase in ambulance use by low risk patients, there was a highly significant 11% increase in ambulance use by people with suspected acute coronary syndromes.

These are important findings, and indicate for the first time that responses to chest pain and suspected heart attack can be modified by an evidence-based mass media campaign.

While this study is a major advance in an area of heart research and public health that has been very frustrating with its lack of progress, its major limitations were that the investigators did not have information about two crucial questions: did the campaign shorten the response time for suspected heart attack, and were heart damage and survival outcomes improved? The Victorian component of the campaign cost \$3 million,⁹ and its cost-effectiveness cannot be assessed without this information. Now that a firm basis has been established for modifying behaviour in relation to suspected heart attack, further high quality research of this type will no doubt provide answers to these key questions.

Competing interests: Peter Thompson was chair, and Trevor Shilton a member of the National Heart Foundation of Australia Chest Pain Every Minute Counts Working Group that reported to the Heart Foundation in 2007 and simultaneously published its recommendation (in September 2007⁶) for a national campaign about the early recognition of heart attack symptoms.

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