A case study framework for design and evaluation of a national project to improve prehospital care of acute myocardial infarction and stroke

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Background
Cardiovascular disease (CVD) affects 1.8% of the population annually, 0.9% with stroke and 0.8% with coronary heart disease. People suffering from CVD often present acutely to ambulance services with symptoms of acute myocardial infarction (AMI) or stroke. Early and effective treatment prevents death, improves long term health and reduces future disability.

Objective
Our aim is to develop a rational approach for informing the design and evaluation of a national project for improving care bundles for prehospital care of AMI and stroke: the Ambulance Services Cardiovascular Quality Initiative (ASCQI), the first national improvement project for prehospital care.

Methods
We will use a multiple case study methodology (Yin, 2002). An evaluation logic model was developed to define inputs (in terms of resources for planning, implementation and evaluation), outputs (in terms of intended changes in healthcare processes) and longer-term outcomes (in terms of health and wider benefits or harms), whether intended or incidental and in the short, medium or long term.