Do area-based interventions to reduce health inequalities work: a systematic review of evidence

O'Dwyer LA, Baum F, Kavanagh A, Macdougall C

CRD summary
This review assessed whether area-based interventions reduced health inequalities with the finding that there was some evidence that area-based interventions reduced inequalities. The authors' conclusions are suitably cautious in reflecting the available evidence and their recommendations for further research are likely to be reliable.

Authors' objectives
To assess whether area-based interventions reduce health inequalities.

Searching
More than 20 electronic databases and selected websites were searched (dates not reported). Reference lists of retrieved studies were screened. National and international organisations and individuals were contacted to identify additional studies. Only studies reported in English were eligible for inclusion. There was no restriction on type of publication. Search terms were reported.

Study selection
Any study that reported the results of evaluations applied to area-based interventions, but not to individual or social groups, aimed at reducing health inequalities between groups and which was based on changing a specific place was eligible for inclusion. A wide range of interventions were considered. The included studies covered: health promotion using education, public awareness or behaviour change; improvement to environment/structural change; move people to new areas; and combination of at least two strategies including community involvement, organisational partnership, health promotion and structural change. Included studies used a combination of strategies rather than one identifiable action. Intervention outcomes were defined according to whether they were successful, mostly or partly successful, unclear or unsuccessful.

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

Assessment of study quality
Rating items from the Rychetnik and Frommer Schema were used to assess the quality of each study, including execution, appropriateness and setting of the intervention, research design and planning, perspectives used, clarity and appropriateness of the research question, credibility of the findings and publication status.

Two reviewers independently assessed study validity and any disagreements were resolved through consultation with a third reviewer.

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

Methods of synthesis
A narrative synthesis was undertaken. Differences between the studies were discussed and study details tabulated.

Results of the review
A total of 24 studies was included in the review: 17 had a high quality rating, six had an average rating and one a low rating.

Five evaluations reported interventions that were successful: four evaluated Health Action Zones (HAZs) and the fifth
the construction of a supermarket in a food desert. Successful interventions employed a number of different strategies, but all included improvements to management systems with increased strategic partnerships and a degree of partnership with government and community organisations.

Eleven papers evaluated UK HAZ, three of which were considered at least mostly successful, four partly successful, three were unclear and one was unsuccessful. Eight of these studies were rated as being of high quality and three as average.

Each aspect of the quality criteria were discussed individually; few papers discussed ethical issues associated with area-based interventions.

There was some evidence that area-based interventions reduced inequalities. Seven studies found substantial effects and nine found partial effects. Such interventions tended to produce beneficial results when there was a change in the physical environment, adequate funding, good leadership and liaison with local communities, and the size of area was appropriate to the inequality.

**Authors' conclusions**
There was some evidence that area-based interventions reduced inequalities, but better designed and timed evaluations of outcomes were required.

**CRD commentary**
The review addressed a clear question and undertook a comprehensive search for both published and unpublished studies. The language restriction meant the review may have been prone to language bias. More than one reviewer was involved in validity assessment, but it was not clear whether this extended to study selection and data extraction. Although specified, the inclusion criteria were vague; given the nature of the review these seemed appropriate. The studies were appropriately combined in a narrative synthesis. The quality of the included studies was mostly high and despite the highlighted methodological shortcomings the authors' conclusions are suitably cautious in reflecting the available evidence and are likely to be reliable.

**Implications of the review for practice and research**

**Practice**: Prior to the start of the intervention funders and evaluators should enter into long-term relationships.

**Research**: The authors listed a number of recommendations in the paper. These included: collection of baseline data; follow-up outcome evaluation after the end of the intervention; long-term support; more evaluations of outcomes; future evaluations should consider all stakeholders; evaluation methodologies should be robust and flexible; and area-based interventions should be compared with similar non-intervention areas.

**Funding**
Not stated.

**Bibliographic details**

**Indexing Status**
Subject indexing assigned by CRD

**MeSH**
Community Health Planning; Environmental Health; Health Promotion; Health Status Disparities; Humans; Poverty Areas; Social Environment

**AccessionNumber**
12008104291
Date bibliographic record published
03/11/2008

Date abstract record published
16/12/2009

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.