

# Rapid Review of the Literature

## *Community-based Interventions*

### Short Form

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### Community-based Interventions

#### Statement of review questions

1. What is the evidence of effectiveness of community-based interventions (CBIs) in improving health outcomes (healthy eating, participation in physical activity, etc.) and reducing health inequalities?
  - What, if any, is the effect of CBIs in creating change in the social environment (e.g. community, organisational or policy levels)
  - What evidence is there on the cost-effectiveness of CBIs in achieving similar outcomes?
2. What is the evidence for enablers (success factors) and barriers for CBIs?
3. Where possible, comment on sustainability of programs.

#### Definition of CBI

CBI, for the purpose of this rapid review, was defined based on the framework provided by Merzel and D’Afflitti (2003). This framework describes CBI as:

1. Integrated and comprehensive;
2. Involving a range of locations;
3. Employing multiple interventions;
4. Including multiple individuals, organisations, groups;
5. Involving the community in planning, implementation, management and evaluation;
6. Including multiple individual-level intervention strategies.

#### Findings

This rapid review identified the current best evidence for CBIs from nine systematic reviews (Merzel & D’Afflitti 2003; Bruce & van Teijlingen 1999; Foxcroft et al 2002; Kahn et al 2002; Levy & Friend 2002; Michie et al 2009; Pomerleau et al 2005; Ciliska et al 2000; Knai et al 2006) and two literature reviews (Jane-Llopis et al 2005; Giesbrecht & Haydon 2006). The overall body of evidence using the National Health and Medical Research Council (NHMRC) Matrix was good (B).

The reviews were categorised into three tiers:

**Tier One:** Reviews that meet the benchmark (five criteria) definition of CBIs (criteria 1-4 and 6).

**Tier Two:** Reviews that meet four out of the six criteria

**Tier Three:** Reviews that did not “fit” within tier one or tier two, but have reported specific programs within individual reviews which meet at least four of the six criteria

#### Review answers

There are varying levels of evidence for the effectiveness of CBIs.

- *Tier-one reviews* provide evidence for improved mental health as demonstrated by improved cognitive skills, and decreased violence, aggressive behaviours and substance use; positive change in the social environment (home, school, and community in general)
- *Tier-two reviews* provide evidence for positive changes in attitude and knowledge towards smoking and decreased tobacco sales; increased participation in physical activity; increased fruit and vegetable consumption; reduced health inequalities in smoking reduction,

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increasing participation in physical activity, and promoting healthy eating

- *Tier-three reviews* support the effectiveness of specific programs such as 5-A-Day Power Plus Program (which led to an increase in consumption of fruits and vegetables), Minnesota Heart Health Programme (which resulted to a reduction in smoking behaviour), and Preventing Alcohol Trauma (which led to a reduction in underage sales, changes in local zoning laws to reduce outlet densities and decrease in alcohol consumption, assaults and traffic crashes).
- Evidence for reducing alcohol consumption and other alcohol related behaviour is equivocal
- There is no evidence found on the cost-effectiveness of CBIs to support definitive statements.

There is consistent evidence from *tier-one, tier-two and tier-three reviews* that there are critical success factors underpinning CBIs, which include:

- Tailored interventions to reflect the needs of the community, and reach recognised target end users (such as low-income groups) (Merzel & D'Afflitti 2003; Michie et al 2009)
- Ensuring sufficient penetration of the community by the use of an ecological approach (Merzel & D'Afflitti 2003; Jane-Llopis et al 2005; Kahn et al 2002; Ciliska et al 2000; Knai et al 2006), multiple interventions (Merzel & D'Afflitti 2003; Jane-Llopis et al 2005; Bruce & van Teijlingen 1999; Foxcroft et al 2002; Kahn et al 2002; Levy & Friend 2002; Michie et al 2009; Pomerleau et al 2005; Ciliska et al 2000; Knai et al 2006; Giesbrecht & Haydon 2006), and establishing key stakeholder partnerships (Merzel & D'Afflitti 2003; Jane-Llopis et al 2005; Kahn et al 2002).

There is scant evidence on the sustainability of CBIs as few reviews report on this. Where this information is available there is some evidence of short-term sustainability (up to 12 months), with variable evidence of longer-term sustainability. It is not possible from the current evidence base to determine the relationship between programs with critical success factors, and sustainability duration.

### Key learnings

Based on current best evidence from research, CAHE provides a summary of strategies for planning, implementation and evaluation of CBIs.

- ❖ The best evidence for CBIs suggests that such programs should be underpinned by six core elements as proposed by Merzel and D'Afflitti (2003). To date, there is an evidence-practice gap where many current CBIs, as reported in the literature, do not adhere to all six core elements. Therefore, there is an opportunity to pilot new and innovative CBIs which are underpinned by these principles.
- ❖ Whilst these core elements provide a framework for the design and

development of CBIs, evidence also highlights the importance of critical success factors for successful implementation of CBIs. Appropriate consideration of the following will have a significant impact upon anticipated behaviour change and the sustainability of CBIs:

- The best evidence suggests that tailoring of interventions to the community is crucial in achieving population-level change. This may be achieved through needs assessment, examination of community capacity and gap analysis.
- The best evidence suggests that sufficient penetration of the community is required to effect widespread behaviour change. This may be achieved through a multi-component approach that addresses individual-level change as well as broader community perspectives; stakeholder involvement; and regular and timely monitoring via process and outcome evaluations.

### References

#### **Tier One**

Jane-Llopis E, Barry M, Hosman C, Patel (2005): Mental health promotion works: a review. *Promotion & Education*; Supplement 2: 9-25.

Merzel C, D’Afflitti J (2003): Reconsidering community-based health promotion: promise, performance, and potential. *American Journal of Public Health*; 93(4): 557-574.

#### **Tier Two**

Bruce J, van Teijlingen E (1999): A review of the effectiveness of Smokebusters: Community-based smoking prevention for young people. *Health Education Research*; 14(1): 109–120.

Foxcroft D, Ireland D, Lowe G, Breen R (2002): Primary prevention for alcohol misuse in young people. *Cochrane Database of Systematic Reviews*; Issue 3. Art. No.: CD003024. DOI: 10.1002/14651858.CD003024.

Kahn EB, Ramsey LT, Brownson RC, Heath GW, Howze EH, Powell KE, Stone EJ, Rajab MW, Corso P, the Task Force on Community Preventive Services (2002): The effectiveness of interventions to increase physical activity: a systematic review. *American Journal of Preventive Medicine*; 22(4S):73–107.

Levy DT, Friend KB (2002): Strategies for Reducing Youth Access to Tobacco: a framework for understanding empirical findings on youth access policies. *Drugs: Education, Prevention and Policy*; 9(3): 285-303.

Michie S, Jochelson K, Markham WA, Bridle C (2009): Low-income groups and behaviour change interventions: a review of intervention content, effectiveness and theoretical frameworks. *Epidemiology and Community Health*; 63:610–622.

Pomerleau J, Lock K, Knai C, McKee M (2005): Interventions designed to increase adult fruit and vegetable intake can be effective: a systematic review of the literature. *Journal of Nutrition*; 135: 2486–2495.

#### **Tier Three**

Ciliska D, Miles E, O’Brien MA, Turl C, Tomasik HH, Donovan U, Beyers J (2000): Effectiveness of community-based interventions to increase fruit and vegetable consumption. *Journal of Nutrition Education*; 32(6): 341-352.

Knai C, Pomerleau J, Lock K, McKee M (2006): Getting children to eat more fruit and vegetables: A systematic review. *Preventive Medicine*; 42:85-95.

Giesbrecht N, Haydon E (2006): Community-based interventions and alcohol, tobacco and other drugs: foci, outcomes and implications. *Drug and Alcohol Review*; 25: 633-646.