

# Asthma Control: Home-Based Multi-Trigger, Multicomponent Environmental Interventions for Adults with Asthma

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## Task Force Finding and Rationale Statement

### Intervention Definition

These interventions involve trained personnel making home visits to conduct two or more activities (components) within the home. These activities are focused on reducing exposures to multiple asthma triggers (allergens or irritants) through environmental assessment, education, and remediation. Most programs include additional components such as self-management training, social support, and coordinated care in conjunction with efforts to reduce triggers in the home.

### Task Force Finding (June 2008)

The Community Preventive Services Task Force finds insufficient evidence to determine the effectiveness of home-based, multi-trigger, multi-component interventions with an environmental focus for adults with asthma due to a small number of studies with inconsistent results.

### Rationale

This finding is based on the limited number of studies providing measurements of outcomes in adults with asthma. Three intervention studies (all controlled trials) reported one or more measurements of change in the outcomes considered in this review. Although two studies showed a median relative increase of 9.2% (range: 5.3% to 13%) in quality of life or symptom scores, the results for healthcare use (one study) and productivity outcomes (one study) showed little to no improvement. Additional intervention research is needed regarding the use and impact of these interventions for adults with asthma..

### Publications

Crocker DD, Hopkins D, Kinyota S, et al. A systematic review of home-based multi-trigger multi-component environmental interventions to reduce asthma morbidity. *Journal of Allergy and Clinical Immunology* 2009; 123: S20-S20.

Crocker DD, Kinyota S, Dumitru GG, Ligon CB, Herman EJ, Ferdinands JM, Hopkins DP, Lawrence, BM, Sipe TA, Task Force on Community Preventive Services. Effectiveness of home-based, multi-trigger, multicomponent interventions with an environmental focus for reducing asthma morbidity: a Community Guide systematic review. *Am J Prev Med* 2011;41(2S1):S5-32.

Nurmagambetov TA, Barnett SBL, Jacob V, Chattopadhyay SK, Hopkins DP, Crocker DD, Dumitru GG, Kinyota S, Task Force on Community Preventive Services. Economic value of home-based, multi-trigger, multicomponent interventions with an environmental focus for reducing asthma morbidity: a Community Guide systematic review. *Am J Prev Med* 2011;41(2S1):S33-47.

Task Force on Community Preventive Services. Recommendations from the Task Force on Community Preventive Services to decrease asthma morbidity through home-based, multi-trigger, multicomponent interventions. *Am J Prev Med* 2011;41(2S1):S1-4.

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