11 SYSTEMATIC REVIEW AND META-ANALYSIS EVALUATING THE EFFECTIVENESS OF HOME SAFETY INTERVENTIONS (EDUCATION AND PROVISION OF SAFETY EQUIPMENT) FOR CHILD INJURY PREVENTION

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Background Injuries are the leading cause of childhood death in industrialised countries with steep social gradients in morbidity and mortality. Most injuries in pre-school children occur at home, however there is little meta-analytic evidence that home safety interventions (HSI) reduce injury rates, improve safety practices or impact on injury inequalities.

Aims/Objectives/Purpose To investigate effectiveness of HSI in increasing home safety practices and reducing child injury rates and whether the effect varied by social group.

Methods Bibliographic databases, relevant websites, conference proceedings, bibliographies of relevant studies, and previously published reviews were searched.

Results/Outcome 54 studies were included in at least one meta-analysis. HSI were effective in promoting safe hot tap water temperatures (OR 1.41, 95% CI 1.07 to 1.86), functional smoke alarms (OR 1.81, 95% CI 1.30 to 2.52), fire escape plans (OR 2.01, 95% CI 1,45 to 2.77), storing medicines (OR 1.53, 95% CI 1.27 to 1.84) and cleaning products (OR 1.55, 95% CI 1.22 to 1.96) out of reach, having syrup of ipecac (OR 3.34, 95% CI 1.50 to 7.44) and poison control centre numbers accessible (OR 3.30, 95% CI 1.70 to 6.39) and fitted stair gates (OR 1.61, 95% CI 1.19 to 2.17). HSI may reduce injury rates especially when delivered at home (IRR 0.75, 95% CI 0.62 to 0.91). There was no consistent evidence that HSI were less effective in those at greater risk of injury.

Significance/Contribution to the Field HSI are effective in increasing a range of safety practices and may reduce injury rates without widening existing inequalities.