0614 **DECISION ANALYTIC MODELS TO EVALUATE THE COST-EFFECTIVENESS OF STRATEGIES FOR PREVENTING FIRE-RELATED INJURIES IN CHILDREN**

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Aim To develop decision analytic models to evaluate the cost-effectiveness of strategies for preventing fire-related injuries in children, for use in Children's Centres in the UK.

Methods Decision models will be developed to characterise the impact of different interventions to prevent fire related injuries (eg, possession of functional smoke alarms, fire guards and fire extinguishers) in terms of costs and quality of life. These models will be populated using relevant data obtained from a variety of sources including: (i) effectiveness of the different interventions in preventing fire related injury obtained from systematic review of existing experimental and observational studies, (ii) costs obtained from existing economic evaluations and other published data and (iii) effectiveness of a range of interventions on the use (and functioning) of equipment from existing trials and systematic reviews This decision analysis will identify the most cost effective strategies to increase the prevalence of functioning equipment and prevent fire related injuries. All model parameters will be estimated with uncertainty and correlation between parameters will be accounted for within a comprehensive modelling framework using Bayesian methods.

Results and Conclusions The decision analysis models for fire prevention interventions will be used to develop injury guidance for Children's Centres (injury prevention briefing, (IPB)). The implementation of the IPB will be tested using a cluster randomised control trial.