Background While age-appropriate restraints protect child passengers against injuries, best practice child restraint use has been difficult to achieve.

Aims/Objectives/Purpose To evaluate the effectiveness of an education and distribution programme in increasing age-appropriate and correct child restraint use.

Methods We conducted a cluster randomised trial of a multifaceted education, restraint distribution and fitting programme during 2010 and 28 early childhood education services in low socioeconomic areas of urban Sydney, Australia participated. The main outcome measure was optimal restraint use defined as age-appropriate restraints, installed into the vehicle correctly and used correctly.

Results/Outcome One service from the intervention arm withdrew after randomisation, so data are presented for 689 child passengers, aged 3–5 years arriving by vehicle at 27 centres during September–December 2010. More children attending intervention centres were optimally restrained (43% vs 31%, p=0.01, allowing for clustering by centre). The largest difference was among 3-year-olds using forward-facing seats rather than booster seats and among 5-year-olds using booster seats instead of seat belts alone at intervention centres. Among families who spoke a language other than English at home, more children attending intervention centres (43%) were optimally restrained than at control centres (17%) (p=0.002, allowing for clustering by center).

Significance/Contributions to the Field The programme increased the use of age-appropriate restraints and the correct use of restraints which translates to improved protection against crash injury. This research shows that multifaceted education, seat distribution and fitting enhances the effects of legislation, particularly in linguistically isolated groups.