Background Road traffic injuries in Bangladesh have now emerged as a serious development challenge and are inhibiting poverty reduction strategies. A major portion of the people killed or seriously injured in traffic crashes are pedestrians and children are particularly vulnerable.

Objectives To provide an overview of the pedestrian crash characteristics and risk factors and to describe road infrastructure improvement options towards achieving sustainable pedestrian safety in Bangladesh.

Methods Cash data from the Bangladesh Police for the years between 1998–2008 were analysed and studied. The data extracted included crash location, types, and severity and diurnal characteristics. Observational and on-scene in-depth studies of hazardous locations were also studied linking iRAP field assessment and inspection of high risk corridors.

Results Pedestrians accounted for more than half (52%) of the reported road traffic fatalities in Bangladesh. They are highly over-represented in urban areas, up to 80%. Pedestrian movements along and across the roads are numerous. Children are particularly vulnerable as pedestrians. One third of the pedestrian deaths are under the age of 16 years. The principal risk factor is the mixing of pedestrians with high speeding vehicles, buses and trucks in particular. Other risk factors are road environmental hazards, conflicting roadside linear developments and land use activities, poor understanding on the part of pedestrians and poor vehicle fronts etc. The safety ratings of highways are mostly (98%) 2-stars or less (out of possible 5-stars) for pedestrians—indicative of serious road infrastructure and environmental deficiencies.

Significance Pedestrian-vehicle conflicts are the greatest safety problem in Bangladesh. Addressing pedestrian safety is clearly an urgent necessity in order to be able to attain the targeted road safety gains during the Decade of Action for Road Safety. Large scale pedestrian safety could be achieved through planning road infrastructure safety improvements via modifications of road layout and environment and by putting in place the life saving features like footpaths, safety barriers, refuge islands, sealed shoulders and signals. Such road infrastructure improvement programmes in line with a universal Safe System approach will lead to sustainable pedestrian safety rapidly and affordably in Bangladesh.