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EVALUATION OF SPEED HUMPS ON PEDESTRIAN INJURIES IN GHANA

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Objective To evaluate the effectiveness of speed humps in reducing pedestrian crashes at selected settlements located along the Konongo-Kumasi highway.

Materials and Methods The study adopted before and after comparison of police reported casualty crashes at six treated sites. The crash data for the evaluation was obtained from the National Road Accident Database which is maintained through the use of the Micro-computer Accident Analysis Package (MAAP) software. Unobtrusive vehicles speeds were also measured with the aid of radar speed gun.

Results The speed humps are effective in reducing casualty crash frequencies by 37.5%, fatal crashes by 46% and pedestrian crashes by 72%. Generally, road traffic crashes reduced both in number and severity at the treated sites. On average, there has been an annual pedestrian crash reduction of 3.25 fatal crashes, 2.75 serious injury crashes and 0.25 minor injury crashes; resulting in an annual reduction in pedestrian casualties of 63%. The average vehicle speeds established to be between 71 km/h and 87 km/h before installation of the speed humps reduced considerably to an average of between 32 km/h and 36 km/h after installation.

Conclusions Speed humps are effective in reducing pedestrian crashes in settlements located along the interurban highway. The speed humps are able to lower the average speeds of vehicles to levels below the 50 km/h posted speed limit desirable for settlements. The results are useful for black spots management in settlement areas and for strategic road safety investments.