performed at injury locations captured path, roadway, safety, land use, and aesthetic characteristics. Logistic regression OR adjusted for age, sex, peak time, and bicyclist speed with 95% CI were estimated to relate injury risk to environmental characteristics.

Results We audited 274 locations (70 case sites). A higher proportion of MV cases than controls (35.7% vs 11.3%) were commuting. Based on the unmatched analyses, the odds of a MV event were higher at locations with greater traffic volume (OR 3.5; 95% CI 1.4 to 8.9), intersections (OR 2.8; 95% CI 1.1 to 7.2), path obstructions (OR 2.6; 95% CI 1.1 to 5.9), and retail land use (OR 7.5; 95% CI 3.1 to 18.0). Locations with street lights (OR 0.4; 95% CI 0.2 to 0.9), high surveillance (OR 0.3; 95% CI 0.1 to 0.8), or good road condition (OR 0.4; 95% CI 0.2 to 0.9) reduced severe injury risk. Results were similar based on matched analyses.

Significance Built environmental risk factors for bicyclist injury were identified and could be modified to increase safety and encourage more bicycling.

Concurrent G: Sport and Recreation

44 ENVIRONMENTAL DETERMINANTS OF BICYCLING INJURIES

doi:10.1136/injuryprev-2012-040580c.44

[1,2]N Ruest*, [3,4]BH Rowe, [2]GR McCormack, [1,2]A Nettel-Aguirre, [1,2]BE Hagel.
[1]Department of Paediatrics, University of Calgary, Canada; [2]Department of Community Health Sciences, University of Calgary, Canada; [3]Department of Emergency Medicine, University of Alberta, Canada; [4]School of Public Health, University of Alberta, Canada

Background Identification of environmental risk factors for bicycling injuries could lead to improved safety and increased bicycling.

Objectives To identify built environment characteristics associated with bicycling injuries.

Methods Participants were recruited from seven emergency departments (ED) in Alberta, Canada. Cases were bicyclists struck by a motor-vehicle (MV) or with severe injuries (hospitalised). Controls were bicyclists who were not hit by a car or those seen and discharged from the ED, matched on day and time. Crash details were collected by interview and chart reviews. Environmental audits

Inj Prev: first published as 10.1136/injuryprev-2012-040580c.44 on 7 October 2012. Downloaded from http://injuryprevention.bmj.com/ on April 14, 2024 by guest. Protected by copyright.